OFFICIAL GAZETTE

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OFFICE ORDINANCE

Attorney-General's Office Ordinance No. 32

June 12, 1948

The following partial amendment shall be made to the Ministerial Ordinance (Ministry of Justice Ordinance No. 43 of 1947) concerning the Designation of Officials and other matters pursuant to the Cabinet Order No. 30 of 1947:

Attorney-General
SUZUKI Yoshio

Article 1-2. The power concerning the authorization of the revision of registration and the approval of abolition or destruction of the books or documents concerning registration shall be exercised by the Head of the Judicial Affairs Bureau.

Supplementary Provisions:

This Ordinance shall come into force as from the day of its promulgation.

A part of the Ministerial Ordinance concerning the Procedure for Commercial Registration shall be amended as follows:

In Article 34, "the fact of permission having been given" shall read "the official title of a person who has given the permission."

MINISTERIAL ORDINANCE

Ministry of Labor Ordinance No. 8

June 12, 1948

Part of the Enforcement Regulations of the Unemployment Insurance Law (Ministry of Labor Ordinance No. 10 of December, 1947) shall be amended as follows; and this Ordinance shall be enforced as from the day of its promulgation:

Minister of Labor
KATO Kanju

In Article 1, "the Public Employment Security Office or other section or employment security system under the jurisdiction of which covers the location of the working place of the insured" is to be read "the Prefectural Governor or other section of employment security system having jurisdiction over the location of the working place of the insured."

Article 3 shall be amended as follows:

In accordance with the provisions of the Law, papers to be submitted from the employer to the Labor Minister shall be submitted through the prefecture having the jurisdiction over the location of the working place where the insured employed.

In Article 6, "Article 1, Paragraph 2" is to be read "Article 1, Paragraph 2 or Paragraph 3."

In Article 29, "or P.E.S.O." is to be crossed out.

Next to Article 35, Paragraph 1, Item 1, the following one item shall be added, and each of the former item number following is to be advanced by one number:

2. Composition, delivery, or sending of the Unemployment Notice as provided in the Article 9.

Form No. 1, No. 2, No. 3, No. 5, No. 6 shall be respectively amended as follows:

Form No. 1. (Back)

General remarks:

1. This application shall be submitted to the Prefectural Governor within ten days from the day when the working place comes under the stipulation Article 6 of the Law.
2. Specific remarks on the statement:
   (1) Enter the date on which the working place comes under the stipulation of Article 6 of the Law.
   (2) Enter the mark of the working place of the health insurance.
   (3) Enter the appellation of the working place.
   (4) Enter the location of the working place.
   (5) Enter the health insurance number of the insured.
   (6) Enter the full name of the insured.
   (7) Enter the sex of the insured.
   (8) Enter the age of the insured by the Japanese way of counting.
   (9) Enter the amount of wages on which basis the amount of premium of the month in which the Law apply shall be calculated.

Form No. 2. (Back)

General remarks:

1. The employer must make this report on the respective states as of the last day of June, September, December and March in the following year.
2. The employer must submit this report to the Prefectural Governor respectively by the end of the following month mentioned in the preceding item.
3. This report, being the basic material for the official inspection according to Article 51 of the Law, must

be made correctly.

4. Specific remarks on statement:
   (1) Enter the number of the working place in the health insurance.
   (2) Enter the appellation of the working place.
   (3) Enter the location of the working place.
   (4) Enter the health insurance number of the insured.
   (5) Enter the full name of the insured.
   (6) Enter the sex of the insured.
   (7) Enter the age of the insured by the Japanese way of counting.
   (8) Enter the date on which the qualification as the insured of the unemployment insurance was given.
   (9) Enter the date of disqualification only for those who lost qualification as the insured of the unemployment insurance.
   (10) Enter the total amount of wages used as the basis of calculation of premium of Item 10 in "The monthly report on unemployment insurance premium collection taxable wages paid to all insured," that is wages, salary, allowance, bonus and all other payments paid to the insured as remuneration for labor under whatever name these may be called.

Form No. 3. (Surface) Japanese Standard Size B5

Unemployment Notice of the insured for Unemployment Insurance.

(1) Date delivered.

		(2) Employer's Health Insurance No.	(3) Insured's Health Insurance No.	
Insured Person	(4) Full Name		(5) Sex	(6) Age
	(7) Address			(11) The name of calender month in which the insured did not work more than 10 days.
	(8) Date employed			
	(9) Date qualified			
	(10) Date of unemployment			

(12) The month in which the basic wages on which the amount of benefit shall be calculated were paid.		(A) The last full month (refer to Remarks)	(B) The last full moth of covered employment (refer to Remarks)
(13) No. of labor day			
(14) Amount of taxable wages	(A) Fixed wage per definite period (monthly or weekly)		
	(B) Part of the wage defined by month, week or any other fixed price.		
	(C) Wage computed by Labor days or labor hours, or defined by piece-rate or other contract price.		

(15) In case the wage paid in month in 12 is higher than that of in (A) month, (B) month, is of a kind of law, ordinance, rule, labor contract or employment regulations, just write "yes" or no.

(16) Reason for unemployment	(A) Discharged for employer's convenience	(17) Specific description
	(B) Discharged due to closing of working place	
	(C) Quit with inevitable reason	
	(D) Voluntary retirement	
	(E) Discharge for serious reason due to one's own responsibility	
	(F) Others	

I certify that this information is true to best my knowledge and belief.

(18) Full Name and Address of person unemployed (Seal)

(19) Working place	Appellation	
	Location	

(20) Full Name of Employer (Seal)

Employment Security Bureau, Labor Ministry.

Seal of the Labor Ministry

Shape of the Security Office Distribution this form is 148×210

(Back)

Remarks to the Insured under Unemployment

1. When you received this card from the employer, you must go to the competent P.E.S.O. which covers your address and must submit this card.
2. In case you found mistakes in the description in this card, you must ask for the correction.

Remarks on statement to the employer

1. In case the insured of the unemployment insurance became unemployed, the employer must make this card and give it to the insured.
2. Specific remarks on statement:
   (1) Enter the date and the insured who became unemployed after the employer made this card.
   (2) Enter the number of the working place of the health insurance.
   (3) Enter the health insurance certificate number of the insured.
   (4) Enter the full name of the insured.
   (5) Enter the sex of the insured.
   (6) Enter the age of the insured by the Japanese way of counting.
   (7) Enter the present address of the insured.
   (8) Enter the date of employment of the insured only when he is the qualified recipient of the unemployment allowance.
   (9) Enter the date on which the qualification as the insured of the unemployment insurance was given.
   (10) Enter the date on which the insured was unemployed.
   (11) Enter the name of calender months in which the insured did not work more than 10 days during one year prior to the date of unemploment. (refer to Article 14 of the Law.)
   (12) Enter the name of the two months. (Column B shall be filled with the name of last full month of covered employment which were calculated as the period of the insured, and column A shall be filled with the name of last full month prior B.)
   (13) As to the insured whose wage is computed by labor days or labor hours, or defined by piece-rate or other contract price, enter the labor days. And as to the insured whose wage is defined by month, week, or other fixed period, enter the total labor days during that period.
   (14) In case the wages paid for the months mentioned in column (12) are fixed wages (monthly or weekly pay) enter them in column A and in case they are other kind of wages (hour, piece-rate or contract system) enter them in column B and in case part of the wage is fixed by month, week or other fixed period enter them in column C, and the period which has come to be the basis of the payment of the said wage shall be stated in ◯.
   (15) If the wage of the month in column B of (12) is higher than that of mentioned in column A because of law, order, ordinance, labor contract or employment regulation, the mark of ◯ must be written around "yes" and if no, write the mark of ◯ around "no."
   (16) Put the mark of ◯ around capital alphabet letter of the corresponding column in accordance with the reason of unemployment.
   (17) Enter the detailed explanation concerning the reason of unemployment marked ◯.
   (18) In case the unemployed person recognizes the description of the card written by the employer from (1) to (17) inclusive and (19) and (20) as correct, he shall write his full name and seals his stamp.
   (19) Enter the appellation and address of the working place.
   (20) The employer shall write his full name and affix his seal.

Form No. 5. (Surface) Japanese Standard Size B 5

The Monthly Report of Unemployment Insurance Premium Collection.

for the month of_____, 19_____.

(1) Number of working place.		(2) Appellation of working place.		(3) Location.			
(4) The number of the insured, at the end of ult.		(5) Number of the newly qualified within this month		(6) Number of the disqualified within this month		(7) The number of the insured at the end of this month	

Classification	The amount of money	Remarks
(8) All wages of this month	*yen*	
(9) Deducted sum	*yen*	Specification 1. Total sum of extraordinary wages...yen. 2. Total sum of wages which are periodically paid for each period more than three month.....yen. 3. Amount of surplus of the fixed maximum wage.
(10) Total amount of taxable wage ((8)—(9)) to be the basis of calculation of premium	*yen*	
(11) Estimated amount of premium payable by the insured and the employer.	*yen*	

I certify that this report is true.

Date:

Full name and address of employer (Seal)

(Employment Security Bureau, Labor Ministry)

Form No. 5. (Back)

General Remarks

1. This report shall be submitted every month.
2. This report shall be submitted to the Prefectural Governor by the 7th of next month by the employer.
3. This report shall written accurately as it is the base of unemployment insurance premium calculation.
4. Method of statement:
   (1) Enter the number of the working place of health insurance.
   (2) Enter the appellation of the working place.
   (3) Enter the location of the working place.
   (4) Enter the number of the insured at the end of previous month.
   (5) Enter the number of the newly qualified during this month.
   (6) Enter the number of disqualified during this month.
   (7) Enter the number of the insured as of the end of this month.
   (8) Enter the total sum of wages paid during this month i.e. wage, salary, allowance, bonus, etc. that was paid as remuneration for labor no matter whatever the name of the pay might be. Accordingly, the total sum shall be included the sum of deduction of No. 9.
   (9) In the column "specification," enter the total sum of extraordinary wages, total sum of wages paid for each period of more than three month, and the part of the amount exceeding the maximum amount of wage in Article 17, Paragraph 3 of the Law.
   (10) Enter the total sum of wage on which the amount of premium was calculated, that is deducted sum of No. column (9) from total wage of this month.
   (11) Enter the twice amount of the insured's insurance premium deducting from the said wage in the current month with regard to each insured person.

Form No. 6. (Post card size)

Notice on Arrear age	No. / Year			Name and address of employer
	Amount of premium of unemployment insurance for in 19	Amount of fee for collecting arrears	Arrears Amount calculating at the rate of 4 *sen* per day for each premium amount of ¥100 from the next day of the time limit for payment up to the previous day to the date of the full payment of money to be collected or the seizure of property.	Please send in your check of the above amount to the Bank of Japan or to the Prefectural Office (Section in charge of Unemployment Insurance) after _____ exclusive. day. Please send in your check of the above amount to the Prefectural Office (Section in charge of Unemployment Insurance), when you fail to send within the fixed period. When the premium and fee for collecting arrears are paid in full before the date specified, the arrears shall be excused. When unpaid in full before the date specified, the disposition of seizure of property shall be taken at once in accordance with the provisions of Article 35 of the Unemployment Insurance Law. Date_____. Revenue Collecting Official_____(Seal)

PUBLIC NOTIFICATIONS

Ministry of Finance Public Notification No. 4

June 12, 1948

Revenue Offices under jurisdiction of Ministry of Finance

Ministry of Finance Instruction No. 2 of April, 1948 shall be partly revised as follows:

Minister of Finance
KITAMURA Tokutaro

"Director of Commerce and Industry Bureau" shall be added next to "Chief of Accounting Section in the Minister of Commerce and Industry's Secretariat," and "Chief of the Securities and Exchange Commission's Secretariat" shall be added next to "Director of Railway Technical Training Institute."

Supplementary Provision:

The present Instruction shall apply as from June 1, 1948.

NOTIFICATIONS

Prime Minister's Office Notification No. 123

June 12, 1948

The following item shall be added next to "Designated Statistics No. 15" in the Cabinet Notification No. 21 of 1947:

Prime Minister
ASHIDA Hitoshi

Designated Statistics No. 16 Fishery Rights Survey Minister of Agriculture & Forestry.

Imperial Household Office Notification No. 11

June 10, 1948

T. M. the Emperor and the Empress have signified their intention that they will go to Nasu, Tochigi Prefecture on the 12th inst. to stay there for some time.

Grand Steward of Imperial Household
TAJIMA Michiji

Ministry of Finance Notification No. 180

June 12, 1948

Mr. Sotaro Yasui (No. 404, 1-chome, Shimoochiai, Shinjuku-ku, Tokyo) was ordered to restitute the undermentioned property to Flora Darrow No. 485-10, Aza Kamiyama, Oaza Nojiri, Shinanojiri-mura, Kamiminochi-gun, Nagano-ken) by July 6, 1948, in accordance with the provisions of Article 2, Paragraph 1 of the Imperial Ordinance concerning the Restitution of Allied Nations' Property in pursuant to the Imperial Ordinance concerning Orders to be issued in consequence of the Acceptance of the Potsdam Declaration (Imperial Ordinance No. 294 of 1946):

Minister of Finance
KITAMURA Tokutaro

Sort: Building (No. 105)
Quantity: 1 Building covering 28.84 *tsubo* in all.
Location: No. 485-10, Aza Kamiyama, Oaza Nojiri, Shinanojiri-mura, Kamiminochi-gun, Nagano-ken

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Ministry of Agriculture and Forestry Notification No. 124

June 12, 1948

In accordance with the provisions of the Forest Law, the Protection Forest in the following area shall hereby be abolished:

Minister of Agriculture and Forestry
NAGAE Kazuo

No. 4,849, Sotohama, Shimokata, Hosoda-machi, Minaminaka-gun, Miyazaki-ken (of the whole acreage of 4 *cho* 2 *tan* 9 *se* 19 *bu*, the acreage by actual surveying of the portion to be abolished being 6 tan 6 se).

Ministry of Agriculture and Forestry Notification No. 125

June 12, 1948

In accordance with the proviso to Article 3-2 of the Arable Land Readjustment Law, the following areas are hereby designated:

Minister of Agriculture and Forestry
NAGAE Kazuo

Chiba-ken
Kisarazu-shi
Nakazato

Nos. 1,334-1, 1,334-2, 1,335-1, 1,335-2, 1,336-1, 1,336-2, 1,337-1, 1,337-2, 1,338-1, '1,338-2 & 1,338-3' amalgamated, 1,339-1, 1,339-2, '1,340-1 & 1,340-3' amalgamated, 1,340-2, 1,341, 1,342-1, 1,342-2, 1,343-1, 1,343-2, 1,344-1. 1,344-2, 1,345-1, 1,345-2, '1,346-1 & 1,346-3' amalgamated, 1,346-2, 1,347-1, 1,347-2, 1,348, 1,349-1, 1,349-2, '1,350-1 & 1,350-3' amalgamated, 1,350-2, 1,351-(1 to 4), 1,352, 1,353-1, 1,353-2, 1,354-1, 1,354-2, 1,355-(to 3). 1,356-(1 to 3), 1,357-1, 1,357-2, 1,358-(1 to 3), 1,359-1, 1,359-2, '1,360-1 & 1,360-4' amalgamated, 1,360-2, 1,360-3, '1,361-1 & 1,361-3' amalgamated, 1,361-2, 1,362-1. 1,362-2, 1,363-1, '1,363-2 & 1,363-3' amalgamated, 1,364-1, 1,364-2, and 1,365-(1 to 3), Kawamukoo; Nos. 1,385-1, 1,385-2, 1,386-1, 1,386-2, 1,387-1, 1,387-2, 1,388-1, 1,388-2, '1,389-1 & 1,389-3' amalgamated, 1,389-2, 1,390-1, '1,390-4 & 1,390-5' amalgamated, '1,390-2 & 1,390-3' amalgamated, 1,391-1, 1,391-2, 1,392-1, 1,392-2, 1,391-3, 1,392-3, 1,392-4, '1,393-1 & '1,393-3' amalgamated. 1,393-2, 1,394-1, 1,394-2, 1,395-(1 to 4), and 1,396-(1 to 5), Shiobata, Nos. 1,397 to 1,434, 1,435-1, '1,435-2 & 1,435-5' amalgamated, 1,435-3, and 1,435-4, Nakajima.

Ministry of Commerce and Industry Notification No. 63

June 12, 1948

In accordance with the provisions of the Electric Appliance Control Regulation, the type of electric appliance was recognized on June 8, 1948 as follows:

Minister of Commerce & Industry
MIZUTANI Chozaburo

Name or Title of Manufacture Recognition Number		Electric Appliance	Location of Main Business Office Type
K.K. Hoshi Denki S.S.			No. 269, Yorii, Yorii-cho, Ozato-gun, Saitama-ken
▽	7-1298	Keyless socket	6A, 250V, porcelain shell, flush type.
ditto			ditto
▽	7-1399	ditto	15A, 250V, porcelain shell, E-39 base, flush type.
ditto			ditto
▽	7-1400	Key socket	6A, 250V, porcelain shell, flush type.
K.K. Seikosha S.S.			No. 18, 3-chome, Shiba-shimbashi, Minato-ku, Tokyo
▽	9-263	Repulsion-start induction motor	100/200V, 400W, 50/60 Cycle 4 poles.

Ministry of Commerce and Industry Notification No. 64

June 12, 1948

In accordance with the provisions of the Electric Appliance Control Regulation, the type of electric appliance was recognized on June 8, 1948 as follows:

Minister of Commerce & Industry
MIZUTANI Chozaburo

Name or Title of Manufacture Recognition Number		Electric Appliance	Location of Main Business Office Type
Matsushita Denko K.K.			No. 1048, Oaza Kadoma, Kadoma-cho, Kitakawachi-gun, Osaka-fu
▽	6-532	Tumbler switch	6A, 250V, single pole quick cut, with fuse, porcelain shell, flush type.
Kato Denki Seizo K.K.			No. 96, 2-chome, Negado, Fuse-shi, Osaka-fu
▽	7-1402	Rosette	6A, 250V, with fuse, Phenolresin-mould body and cover, surface type.

Ministry of Commerce and Industry Notification No. 65

June 12, 1948

The classified table of contents of inventions and utility models is published and sold by the Board of Patents and Standards at ten *yen* (¥10.00) per copy.

Minister of Commerce & Industry
MIZUTANI Chozaburo

Ministry of Communications Notification No. 198

June 12, 1948

The following post offices were established without mail collection and delivery service on and after June 1, 1948 and were designated as special post office in accordance with the provisory clause of Article 10, Paragraph 1 of the Governing Organization for Communications Office:

Minister of Communications
TOMIYOSHI Eiji

Name	Location
Kagashima-sengoku Post Office	Higashi-sengoku-cho, Kagoshima-shi (within the postal district of Kagoshima Post Office)
Shizuoka-higashi-inagawa Post Office	Higashi-inagawa-cho, Shizuoka-shi (within the postal district of Shizuoka Post Office)
Kobe-tamon Post Office	1-chome, Nishi-tamon-dori, Hyogo-ku, Kobe-shi (within the postal district of Kobe Central Post Office)

Ministry of Communications Notification No. 199

June 12, 1948

The following partial amendment shall be made to the Ministry of Communications Notification No. 85 of February, 1912 (concerning post offices which treat the payments waiting at office for postal transfer savings):

Minister of Communications
TOMIYOSHI Eiji

The following Item 14 shall be amended as follows:

Item 14. For account owners belonging to the Kobe Postal Saving Branch Office,
Kobe Central Post Office
Nagata Post Office
Nada Post Office

Ministry of Communications Notification No. 200

June 12, 1948

Post offices in Shimonoseki-shi shall accept checks payable at Shimonoseki-shi only in accordance with the Regulations governing Paying-in of Postal Checks of Postal Transfer Savings since December 1, 1947:

Minister of Communications
TOMIYOSHI Eiji

Ministry of Communications Notification No. 201

June 12, 1948

Post offices in Ogaki-shi shall accept checks payable at Ogaki-shi only in accordance with the Regulations governing Paying-in of Postal Checks of Postal Transfer Savings since December 16, 1946:

Minister of Communications
TOMIYOSHI Eiji

Ministry of Labor Notification No. 18

June 12, 1948

The form of written request as provided in Paragraph 1 of Article 4, and Paragraph 1 of Article 24 of the Cabinet Order regarding Unemployment Allowance Judge and Regulation of Unemployment Allowance Appeal Board, shall be decided as follows and enforced from the day of its promulgation:

Minister of Labor
KATO Kanju

Form No. 1.
Written Request (attached copy of request for hearing)
(According to the provisions of Article 4, Paragraph 1)
To (prefectural) Unemployment Allowance Judge,
From _____
Full name of the claimant
Date _____.

I request the hearing by the Judge as follows.

1. Qualified Recipient's
   _____
   Address
   _____
   Full name
   _____
   Date of Birth
2. Claimant's (In case the claimant is a person other than the qualified recipient)
   _____
   Address
   _____
   Full name
   _____
   Relationship with the qualified recipient:
3. Name of the P.E.S.O. in which the disposition with respect to the payment of allowance was managed.
4. Date on which the disposition with respect to the payment of allowance was managed.
5. Object of the request for hearing.
6. Reasons of the request for hearing.
7. Contents of the evidences.

I heard the request for hearing as the above mentioned.

Date

The official post and name of the judge or the official of P.E.S.O. and his seal.

The above copy was read, and I acknowledge this is the same with my request.

Date

Claimant's full name and his seal.

Notice:

In case the hearing is requested by letter, bracketed "Copy of request for hearing" shall be crossed out, and the space under the above line shall not be entered.

In case the hearing is requested by word of mouth, the claimant's full name in the upper space of the above line shall not be entered.

Form No. 2.

Written Request (attached copy of request for hearing)

(According to the Provisions of Article 24, Paragraph 1)

To: President of the Unemplopment Allowance Appeal Board.

From: Full name of the claimant and seal.

Date:

I Request the hearing hy the Judge as follows.

1. Qualified Recipient's
   Address
   Full name
   Date of Birth
2. Claimant's (In case the claimant is a person other than the qualified recipient)
   Address
   Full name
   Relationship with the qualified recipient
3. Name of P.E.S.O. in which the disposition with regard to the payment of allowance was managed.
4. Date on which the disposition with regard to the payment of allowance was managed.
5. Object of the request for hearing.
6. Reasons of the request for hearing.
7. Contents of the evidence.
8. Full name of the Judge by whom the decision of hearing was made.
9. Date on which the Judge written decision was handed.
10. Reasons for dissatisfaction with the decision of Judge.

I heard the request for hearing as the abovementioned.

Date.

The official post and name of the official of Board or official in P.E.S.O., and his seal.

The above copy was read, and I acknowledge this is the same with my request.

Date.

Claimant's full name and his seal.

Notice:

In case the hearing is requested by letter, bracketed "Copy of request for hearing" shall be crossed out, and the space under the above line shall not be entered.

In case the hearing is requested by word of mouth, the claimant's full name in the upper space of the above line shall not be entered.

APPOINTMENT ORDER

HIRATA Yoshizo, Secretary of Prime Minister's Office:
Granted No. 17 Salary,
Ordered to be attached to General Affairs Section, 1st Division, Price Board.
(June 8, 1948, Price Board)

MATSUO Tokujiro, Secretary of Ministry of Education:
Granted No. 20 Salary,
Assigned to National Research Council.
(April 21, 1948, Ministry of Education)

TOZUKA Tadamasa, Educational Official of Ministry of Education:
Granted No. 12 Salary,
Nominated to Professor of Matsumoto Medical College.

SHIBATA Seiro, ditto:
Granted No. 21 Salary,
Nominated to Asistant Professor of Nagasaki University of Medicine.

ISHII Zen-ichiro, ditto:
Granted No. 20 Salary,
Nominated to Professor of Matsumoto Medical College.

SAWADA Shozo, ditto:
Granted No. 17 Salary,
Nominated to Professor of Special Division of Medicine attached to Tokyo University.

TAKAMATSU Tameyoshi, ditto:
Granted No. 15 Salary,
Assigned to Hiroshima Women's Higher Normal School.

KUSAMA Toshio, ditto:
Granted No. 14 Salary,
Nominated to Asia Assistant Professor of Tokyo University,
Assigned to Faculty of Medicine.

NONOMURA Un-ichi, Educational Official of Local Government:
Nominated to Director of Daito Higher School of Shimane-ken and Concurrently Principal of Daito Girls' High School of Shimane-ken.
(April 8, 1948, ditto)

KAWASE Tetsuzo, Educational Official of Ministry of Education:
Granted No. 30 Salary.

TANAKA Yasutaro, ditto:
Granted No. 29 Salary.

MINAMI Shogo, ditto:
Granted No. 28 Salary.

KATSURA Shigehiro, ditto:
Granted No. 28 Salary,
Nominated to Chief of Special Division of Medicine attached to Kumamoto University of Medicine.

ASAKURA Shizuo, ditto:
Granted No. 27 Salary.

IINO Shisei, ditto:
Granted No. 25 Salary,
Nominated to Professor of Hiroshima Higher Normal School.

HATSUSHIMA Sumihiko, ditto:
Granted No. 24 Salary,
Nominated to Professor of Kagoshima Agricultural & Forestry College.

KONO Kiyoshi, ditto:
Granted No. 21 Salary.

MATSUMURA Tadashi, ditto:
Granted No. 20 Salary,
Nominated to Professor of Nagasaki Normal School for Youth Schools.

HARARA Sachio, ditto:
Granted No. 17 Salary,
Nominated to Professor of Aomori Normal School.

KUBO Ryuichi, ditto:
Granted No. 16 Salary,
Nominated to Professor of Special Division of Medicine attached to Kyushu University.

KUBO Ryuichi, ditto:
Concurrently nominated to Assistant Professor of Kyushu University,
Assigned to Faculty of Medicine.

OIKE Nagato, ditto:
Granted No. 16 Salary,
Assigned to Aichi First Normal School.

OHARA Yoshitaka, ditto:
Granted No. 16 Salary,
Assigned to Okayama Normal School.

KOJIMA Hideyuki, ditto:
Granted No. 10 Salary,
Nominated to Professor of Gifu Normal School.

UCHIDA Shunro, ditto:
Nominated to Professor of Kyoto University,
Assigned to Faculty of Agriculture,
Ordered to be charged with the Chair of Entomology.

KUWAHARA Masanobu, ditto:
Nominated to Professor of Kyoto University,
Assigned to Faculty of Agriculture,
Ordered to be charged with the chair of Agricultural Calculation.

MURAYAMA Sakuro, ditto:
Nominated to Professor of Kyoto University,
Assigned to Faculty of Engineering,
Ordered to be charged with First chair of Civil Engineering.

HIRATSUKA Hiroshi, ditto:
Nominated to Professor of Tohoku University,
Assigned to Faculty of Law & Literature,
Ordered to be charged with Second Chair of History.

HONJIN Ryohei, ditto:
Nominated to Assistant Professor of Kanazawa University of Medicine.

MASATSUKI Sadao, ditto:
Nominated to Professor of Hiroshima Women's Higher Normal School.

TANAKA Kumajiro, ditto:
Ordered to be Superintendent of Kidergarten attached to Women's Division of Yamanashi Normal School.

HORIUCHI Kumao, ditto:
Relieved of Superintendent of Kindergarten attached to Women's Division of Yamanashi Normal School.

SHIOKAWA Takeo, ditto:
Nominated to Professor of Shizuoka First Normal School.

HAYASHI Saichi, ditto:
Nominated to Professor of Fukui Normal School exclusively.

NISHIDA Mikio, ditto:
Nominated to Professor of Tottori Normal School.

MIURA Taiji, ditto:
Nominated to Professor of Shimane Normal School.

MATSUO Tokujiro, Secretary of Ministry of Education:
Assigned to Fukuoka Second Normal School.

NAGAYAMA Daijiro, Educational Official of Ministry of Education:
Nominated to Professor of Nagasaki Normal School.

KITAHARA Kazutoshi, ditto:
Nominated to Professor of Yokohama Economics College.

NODA Ken-ichi, ditto:
Nominated to Professor of Niigata Higher School exclusively.

NISHI Seiho, ditto:
Concurrently nominated to Professor of Maehashi Medical College,
Nominated to Head of Hospital attached to Maehashi Medical College.

KITAGAWA Shintaro, ditto:
Relieved of Head of Hospital attached to Maehashi Medical College.

FUJIHARA Giichi, ditto:
Nominated to Professor of Kyoto Technical College.

NAKAMURA Tsuneo, ditto:
Nominated to Professor of Tokyo Technical College.

INUKAI Tetsuo, ditto:
Concurrently nominated to Professor of Hakodate Fishery College.

EBIHARA Jisaburo, Educational Official of Local Government:
Relieved of Director of Shimada Higher School of Shizuoka-ken.

SHIMADA Yoshio, ditto:
Nominated to Director of Numazu Agricultural Higher School of Shizuoka-ken and concurrently Principal of Numazu Agricultural School of Shizuoka-ken.
NORO Hajime, ditto:
Relieved of Principal of Numazu Agricultural School of Shizuoka-ken.
SHINDO Bunji, ditto:
Relieved of Principal of Tarumizu Girls' High School of Kagoshima-ken.
ENOKIDA Eiji, ditto:
Relieved of Principal of Ei Technical School of Kagoshima-ken.
NAGANO Shigeo, ditto:
Relieved of Principal of Sendai Municipal Women's Commercial School of Kagoshima-ken.
KOJIMA Eihiro, ditto:
Relieved of Principal of Tanegashima Girls' High School of Kagoshima-ken.
SAKIYAMA Shizuo, ditto:
Relieved of Principal of Koyama Girls' High School of Kagoshima-ken.

(April 30, 1948, ditto)

SAKASHITA Noboru, Secretary of Ministry of Communications:
Assigned to Minister's Secretariat.

(May 15, 1948, Ministry of Communications)

KISHIDA Kotaro, Technical Official of Ministry of Communications:
Concurrently assigned to Osaka Wireless Construction Office.

(May 25, 1948, ditto)

OKADA Shiro, ditto:
Assigned to Osaka Telecommunications Engineering Office.
MAKINO Yasuo, ditto:
Assigned to Telecommunications Engineering Bureau, Ministry of Communications.
TSUJI Senji, ditto:
Assigned to Tokyo Telecommunications Engineering Office,
Relieved of concurrent Service at Telecommunications Engineering Bureau, Ministry of Communications.
AIDA Toshi, ditto:
Assigned to Sendai Telecommunications Engineering Office.
HAYASHIDA Shigetaka, ditto:
Assigned to Sendai Telecommunication Carrier Construction Office.
MORITA Shigeo, ditto:
Relieved of concurrent Service at Tokyo Communications Bureau.

(May 26, 1948, ditto)

SUZUKI Isao, Secretary of Ministry of Communications:
Assigned to Postal Bureau, Ministry of Communications.
MIYAZAKI Nobuo, ditto:
Ordered to be Chief of Foreign Post Section, Hakata Post Office.
KOBAYAKAWA Nobuo, ditto:
Assigned to Fukuoka Central Telegraph Office, Concurrently Assigned to Hakata Post Office.
SEITA Kingo, ditto:
Assigned to Telegraph and Telephone Bureau, Ministry of Communications.
ABOSHI Tomojiro, Educational Official of Ministry of Communications:
Ordered to be Chief of Educational Affairs Section, Sendai Communication Training School.
MIZOGUCHI Tsutomu, Secretary of Ministry of Communications:
Assigned to Labor Bureau, Ministry of Communications.
KOSAKA Hisashi, Technical Official of Ministry of Communications:
Assigned to Hiroshima Communications Bureau.
SEKINE Eiichi, ditto:
Granted No. 23 Salary.
AOYAMA Hitoshi, ditto:
Granted No. 20 Salary.

(May 29, 1948, ditto)

HOSHI Tomihisa, Secretary of Ministry of Communications:
Ordered to be Director of Muroran Postal Life Insurance Branch Bureau.
KATO Shigenori, ditto:
Ordered to be Chief of General Affairs Section, Muroran Postal Life Insurance Branch Bureau.
HISANAGA Iwaho, ditto:
Ordered to be Chief of Welfare Section, Muroran Postal Life Insurance Branch Bureau.
KOTAKI Masao, ditto:
Ordered to be Chief of Payment Section, Muroran Postal Life Insurance Branch Bureau.
NOGUCHI Noboru, ditto:
Ordered to be Chief of Policy Section, Muroran Postal Life Insurance Branch Bureau.

(June 1, 1948, ditto)

WAKATSUKI Takeji:
UCHIYAMA Masato:
SAWAKI Shigeru:
MORIYA Masahisa:
TSUCHIYA Masahiko:
HARUHARA Shunsuke:
KAZUKI Hisao:
SAITO Akio:
MIYASHITA Fumio:
Commissioned the Committee of the Nagano Worker's Accidents Compensation Examination Board, respectively.
YOSHIMURA Kiyotaka:
KAWADA Kazuji:
NAKAGAWA Yuichi:
KOMUKU Hatsuzo:
TANAKA Tsutae:
MITANI Susumu:

SUGIHARA Takeo:
TSUCHIYA Shirokichi:
KUBOTA Shinobu:
Commissioned the Committee of the Fukui Worker's Accidents Compensation Examination Board, respectively.
TUHIYAMA Tatsuzoe:
SAKUHARA Makoto:
KAWABATA Jin-ichi:
TAKAOKA Jinsaku:
KITAJIMA Kenzo:
OGAWA Matsuyoshi:
OKADA Ryosuke:
KITAYAMA Hachiro:
ONOE Jisaku:
Commissioned the Committee of the Ishikawa Worker's Accidents Compensation Examination Board, respectively.
TAIRA Sadao:
KITAGAWA Shigeru:
TAKETOMI Yoshi:
KITAHARA Takeshi:
SOBA Nanao:
MATSUO Fumio:
YASUNAGA Sawata:
KODAMA Kizo:
ITOKAWA Yujiro:
Commissioned the Committee of the Saga Worker's Accidents Compensation Examination Board, respectively.
INUYOGUCHI Yoshimi:
TOKUDA Yoshimatsu:
UEYAMA Toyoji:
FUNAKURA Teiichi:
OYAMADA Masakatsu:
URYU Kazuo:
UCHIDA Matsuta:
OKABE Yoitsu:
TANAKA Kazuo:
Commissioned the Committee of the Fukuoka Worker's Accidents Compensation Examination Board, respectively.
ANRA Kanetomo:
AZUMA Kokichiro:
YOKOMAKURA Isamu:
MASUNAGA Shigemi:
OTOMO Joshu:
OSHIMA Tsuneyoshi:
KOJIMA Kashichiro:
KAWANO Hiroshi:
UCHIDA Tatsuo:
Commissioned the Committee of the Kumamoto Worker's Accidents Compensation Examination Board, respectively.
INSUCHIO Tsuruichi:
MORITA Toshiro:
FUJITA Hajime:
TAKITANI Tetsuo:
FUJIMOTO Sakuichi:
KANAYA Taisuke:
CHIJIMATSU Hideji:
NANISHI Giichi:
AKAGAWA Jiro:
Commissioned the Committee of the Yamaguchi Worker's Accidents Compensation Examination Board, respectively.
NAKAGAWA Tokuzo:
UZAKA Takeshi:
MATSUSHITA Hoichi:
TAKASE Asajiro:
OKAMURA Noboru:
KOKURA Yasuichi:
OKUBO Kuhei:
KIMURA Ko:
UEZAKI Takijiro:
Commissioned the Committee of the Tokushima Worker's Accidents Compensation Examination Board, respectively.

(March 31, 1948, Ministry of Labor)

SUZUKI Takeo, Labor Standard Inspector:
Nominated to Chief of Tanimura Labor Standard Supervision Office.

(April 28, 1948, ditto)

TOGASHI Soichi, Secretary of Ministry of Labor:
TAKIMOTO Tadao, Technical Official of Ministry of Labor:
TAKEDA Haruji, Labor Standard Inspector:
TSUKADA Jisaku, ditto:
FUJIMOTO Kihachi, ditto:
IKEBE Michitaka, ditto:
KANEKO Yoshio, ditto:
Appointed to a Extraordinary Member of the Labor Standard Inspector Examination Committee, respectively.
ITO Reiji, Technical Official of Prime Minister's Office:
YOSHIDA Yasusaburo, ditto:
SATO Tatsuo, Director of Legislation Bureau, Attorney General's Office:
MIYAKE Masao, Secretary of Attorney General Office:
NAKANO Tsuguo, ditto:
TAKEUCHI Harumi, Secretary of Foreign Affairs Ministry:
SHINOUCHI Kenji, Secretary of Education Ministry:
MIYAZAWA Toshiyoshi, Educational Instructor:
AZUMA Mitsutoshi, ditto:
UCHIDA Shun-ichi, ditto:
OGAWA Asakichi, Technical Official of Ministry of Welfare:
ISHIBASHI Ukichi, ditto:
KUSUMOTO Masayasu, ditto:
KEIMATSU Ichiro, ditto:
SUZUE Yasuhei, Secretary of Ministry of Commerce and Industry:
ARAKAWA Yasuo, Technical Official of Ministry of Commerce and Industry:
ARAI Hiroshi, ditto:
IWATA Yuzaburo, ditto:
KATSUGI Shinji:

ODAKA Yasuo:
FUJIBAYASHI Keizo:
OKINAKA Tsuneyuki:
Commissioned the Extraordinary Member of the Labor Standard Inspector Examination Committee, respectively.
(May 20, 1948, ditto)
TOMITA Shinji, Secretary of Ministry of Labor:
Assigned to Labor Standard Bureau.
SUZUKI Sueo, Labor Standard Inspector:
Nominated to Chief of Suikaido Labor Standard Supervision Office.
HANAFUJI Yonosuke, ditto:
Nominated to Chief of Mitaka Labor Standard Supervision Office.
NARUSHIMA Tetsu, ditto:
Nominated to Chief of Oji Labor Standard Supervision Office.
OHARA Hideo, ditto:
Nominated to Chief of Mukojima Labor Standard Supervision Office.
OKAMOTO Kokonoe, ditto:
Assigned to Tokyo Labor Standard Bureau.
YOSHIDA Toshio, ditto:
Nominated to Chief of Tottori Labor Standard Supervision Office.
SUDO Koetsu, ditto:
Relieved of Acting Chief of Tottori Labor Standard Supervision Office.
OTANI Risaburo, ditto:
Appointed to Chief of General Affairs Section of Kanagawa Labor Standard Bureau.
EMORI Takeo, ditto:
Relieved of Acting Chief of General Affairs Section of Kanagawa Labor Standard Bureau.
UEMURA Yuzaburo, ditto:
Appointed to Chief of Inspection Section of Aichi Labor Standard Bureau.
KOMAKI Takao, ditto:
Relieved of Acting Chief of Inspection Section of Aichi Labor Standard Bureau.
TAKIYAMA Tadahiko, ditto:
Appointed to Chief of Worker's Accidents Compensation Insurance Section of Kagoshima Labor Standard Bureau.
TOMITAKA Noriaki, ditto:
Relieved of Acting Chief of Worker's Accidents Compensation Insurance Section of Kagoshima Labor Standard Bureau.
(May 26, 1948, ditto)
TERANISHI Kaname, Secretary of Ministry of Labor:
Assigned to Employment Security Bureau.
MARUYAMA Chuichi, ditto:
Granted No. 22 Salary,
Assigned to Employment Security Office,
Appointed Auditor of Unemployment Insurance Special Account.
TSURUKI Tokio, ditto:
Granted No. 18 Salary,
Assigned to Employment Security Bureau,
Appointed Referee of Unemployment Allowance.
EGUCHI Kazuo, Secretary of Local Government:
Granted No. 16 Salary,
Assigned to Saga Prefecture Office.
INABA Kinshiro, ditto:
Granted No. 21 Salary,
Assigned to Tochigi Prefecture Office.
KAMIYAMA Takeshi, Secretary of Ministry of Labor:
Nominated to Chief of Kanuma Public Employment Security Office.
MURAYAMA Masaichi, Secretary of Local Government:
Granted No. 15 Salary,
Assigned to Tochigi Prefecture Office.
KIKUCHI Chuju, ditto:
Granted No. 16 Salary,
Assigned to Ibaragi Prefecture Office.
NARUSE Yasuo, Secretary of Ministry of Labor:
Relieved of office at his own request.
(May 31, 1948, ditto)
TACHIBANA Zenshiro, ditto:
Appointed Chief of Liaison Section of Ministerial Secretariate.
SHIBUYA Naozo, ditto:
FUKUMOTO Takemoto, ditto:
Ordered to be concurrently in service at Liaison Section of Ministerial Secretariate, respectively.
(June 1, 1948, ditto)

COURT CIRCULARS

T. M. the Emperor and the Empress will go to Nasu, Tochigi Prefecture, on the 12th inst., the schedule being as follows:

June 12th:
Leave the Imperial Palace at 8:50 a.m.
To inspect Kurihashi and its vicinity, Saitama Prefecture.
Leave Kurihashi Station at 12:00 a.m.
Arrive at Kuroiso Station at 2:10 p.m.
To arrive at the Nasu Imperial Villa to stay there for some time.

COLLECTIVE INFORMATION

TRANSPORTATION

Notices to Mariners No. 23

Week ending 12th June, 1948 Paragraphs 439 to 458

KWANZI SUDA
Hydrographic Bureau, Tokyo. — Hydrographer of the Japanese Government.

Index

Locality	Paragragh No.
Hokkaido	439-440-Suppl. (142)
NW. coast of Honsyu	Suppl. (147)
N. coast of Honsyu	441
E. coast of Honsyu	Suppl. (143)
S. coast of Honsyu	442-443-444
Inland Sea	445-446-447-448-449-450-Suppl. (144), (145), (147)
Kyusyu	451-452-453-454-Suppl. (147)
China	455-456
North Pacific Ocean	Suppl. (147)
Corrections to Charts and Publications	457
New Charts &c.	458-Suppl. (146)

439* Hokkaido, S. coast – Horoizumi Harbor Light shifted

Description: Horoizumi Harbor Basin Breakwater Light was moved and reestablished as follows.
New position: On the head of the inner breakwater and 55 metres 123° from present charted position.
42°00.7′N., 143°09.0′E. (approx.)
Abridged description: F.8 m. 10½M.(U)
Details: Elevation:-8.5 metres above mean sea level without other change.
Chart: 30 (Horoizumi Ko).
Publications: Hokkaido Coast Pilot (Pub. 3A), p. 61-Light List Vol. I (Pub. 100A), No. 1204-N.M. No. 5 (85), 1948 (canceled).
Authority: Lighthouse Bureau. (691432)
(N.M. No. 23, 1948.)

440 Tugaru Strait, N. shore—Wakimoto Anchorage Wreck and marking buoy

Description: Sunken wreck (Nissen Maru No. 6,521 tons), which is marked by a temporary wooden buoy, lies northward of Wakimoto Anchorage.
Position: 3,250 metres 19½° from summit (214) of Tyuhan Yama. 41°34.8′N.. 140°26.9′E. (approx.)
Depth over the wreck: 11.7 metres.
Note: Depth of 11.7 metres surrounded by danger circle is to be charted in above position and the notes "wreck" and "(1946)" will be shown against the wreck.
Charts: 23 (Wakimoto Byoti)-11-10.
Publication: Hokkaido Coast Pilot (Pub. 3A), p. 31.
Authority: Lighthouse Bureau. (714476)
(N.M. No. 23, 1948.)

441 (T.) Honsyu, N. coast—Aomori Bay Existence of buoys

Description: Following two buoys have been reported in Aomori Bay.
Positions: (a) 40°52.8′N., 140°47.4′E.
(b) 40°57.4′N., 140°46.6′E.
Types: (a) Conical iron buoy with spherical topmark.
(b) Conical iron buoy with cylindrical topmark.
Chart: 143.
Publication: Honsyu Coast Pilot Vol. II (Pub. 1B), p. 187.
Authority: Master of S.S. Yoko Maru. (635241)
(N.M. No. 23, 1948.)

442 Honsyu, S. coast—Irako Channel approach Wreck removed

Description: Sunken wreck (S.S. Kaiten Maru, 1,300 tons) charted about 4 miles eastward of Kami Sima no longer exists and will be expunged from the charts.
Position: About 7,350 metres 92½° from Kami Sima Light.
34°32.5′N., 137°04.2′E. (approx.)
Note: The symbol of dangerous wreck charted in above position will be expunged together with the notes "(P.A.)" and "(1924)."
Charts: 1053-1052-70-61.
Authority: Yokkaiti Kaizyo Hoansyo. (714475)
(N.M. No. 23, 1948.)

443 (T.) Honsyu, S. coast—Taketoyo Harbor Light buoy extinguished

Description: Gongen Su Light Buoy has been reported not burning since May 27, 1948.
Position: West end of Gongen Su (shoal).
34°50.7′N., 136°57.1′E. (approx.)
Abridged description: Fl. ev. 2 sec. 8½M.
Charts: 1052-1051.
Publications: Honsyu Coast Pilot Vol. I (Pub. 1A), p. 123-Light List Vol. I (Pub. 100A), No. 126.
Authority: Lighthouse Bureau. (691430)
(N.M. No. 23, 1948.)

444 Kii Strait, E. side—Yura Harbor Mooring buoys discontinued

Description: 12 mooring buoys in Yura Harbor have been discontinued.
Positions: Distances and bearings from Miya-no-Saki (33°57.5′N., 135°06.2′E. approx.)
(a) 440 metres 81½°.
(b) 610 metres 87°.
(c) 720 metres 86½°.
(d) 740 metres 100½°.
(e) 860 metres 97°.
(f) 770 metres 108°.
(g) 940 metres 106°.
(h) 530 metres 171½°.
(i) 520 metres 150½°.
(j) 600 metres 135°.
(k) 730 metres 133½°.
(l) 850 metres 117°.
Type: Red can mooring buoys.
Remarks: Mooring buoys in the breakwater at Ato still exist.

Chart 97.
Authority Hydrographic Bureau. (720129)
(N.M. No. 23, 1948.)

445 Inland Sea Bisan Seto, E. part—Dango Se. NW. ward Light buoy established

Description Harima Nada North Passage Light Buoy No. 3 was established about 1.3 miles NNE. of I Sima, on May 29, 1948.
Position About 2.400 metres northeastward of Ohiru Sima Light.
34°31′25″N., 134°02′17″E.
Abridged description Fl. ev. 6 sec. 7½M.
Details Characteristic:-Flashing white every 6 seconds. Elevation:-3.6 metres. Visibility:-7.5 miles. Intensity:-60 cp. Structure:-Black and white vertical striped cylindrical iron buoy with framework superstructure.
Charts 137A-153.
Publications Inland Sea Pilot (Pub. 2), p. 114-Light List Vol. I (Pub. 100A), No. 465a (inserted).
Authority Lighthouse Bureau. (691428(2))
(N.M. No. 23, 1948.)

446 (T.)* Inland Sea—Aki Nada Light buoy restored

Description Aki Nada South Passage Light Buoy No. 2 which was previously reported not burning was relighted on May 2, 1948.
Position About 2.7 miles SSE. of Ituki Sima.
34°04.4′N., 132°49.6′E. (approx.)
Abridged description Fl. ev. 6 sec. 7½M.
Charts 104-141.
Publications Inland Sea Pilot (Pub. 2), p. 181-Light List Vol. I (Pub. 100A), No. 556a-N.M. No. 17 (350), 1948 (canceled).
Authority Lighthouse Bureau. (691435)
(N.M. No. 23, 1948.)

447 (T.) Inland Sea Hiroshima Bay, N. part—Ko Nasami Sima Light extinguished

Description Ko Nasami Sima Light has been reported not burning since May 28, 1948.
Position On Ko Nasami Sima.
34°17.3′N., 132°21.9′E. (approx.)
Abridged description Fl. R. ev. 4 sec. 39m. 7½M. (U)
Chart 142.
Publications Inland Sea Pilot (Pub. 2), p. 191-Light List Vol. I (Pub. 100A), No. 593-H.O. Light List Vol. II, No. 1074.
Authority Lighthouse Bureau. (691430)
(N.M. No. 23, 1948.)

448 (T.)* Inland Sea Iyo Nada—W. Passage Light buoy restored

Description Iyo Nada West Passage Light Buoy No. 2 which was previously reported not burning was relighted on May 29, 1948.
Position About 4.4 miles eastward of Ozi-no-Hana.
33°34.3′N., 131°49.8′E. (approx.)
Abridged description Fl. ev. 6 sec. 7½M.
Charts 1101-1102-100B.
Publications Inland Sea Pilot (Pub. 2), p. 239-Light List Vol. I (Pub. 100A), No. 573a-N.M. No. 21 (419), 1948 (canceled).
Authority Tokuyama Sweeping Section. (691429)
(N.M. No. 23, 1948.)

449 (T.) Inland Sea Simonoseki Strait, W. entrance—Huna Se Light buoy missing

Description Huna Se Light Buoy (Occ. W.) has reported missing on June 2, 1948.
Position About 100 metres northward of Huna Se (shoal).
33°56.3′N., 130°52.1′E. (approx.)
Abridged description Occ. ev. 6 sec. SM.
Charts 1226-135.
Publications Inland Sea Pilot (Pub. 2), p. 271-Light List Vol. I (Pub. 100A), No. 679-H.O. Light List Vol. II. No. 1900.
Authority Lighthouse Bureau, S.S. Kamogawa Maru. (691433)
(N.M. No. 23, 1948.)

450 Bungo Strait, E. shore—Uwazima Harbor Existence of wreck

Description A submerged wreck (S.S. Kyodo Maru No. 14, about 400 tons) has been reported about 250 metres northeastward of the east point of Ku Sima, Uwazima Harbor.
Position 940 metres 318° from summit (126) of Ebisu Yama.
33°13.5′N., 132°32.3′E. (approx.)
Note Symbol of dangerous wreck will be charted in above position and the notes "(1948)" and "(P.A.)" will be shown against the wreck.
Chart 138.
Publication Inland Sea Pilot (Pub. 2), p. 293.
Authority Hydrographic Bureau. (726148)
(N.M. No. 23, 1948.)

451 (T.) Kyusyu, E. coast Ariake Bay—Toi Misaki About the light

Description It has been reported Toi Misaki Light may be extinguished for short intervals occasionally for the present due to power limitation.
Position On Toi Misaki.
31°21.8′N.. 131°20.9′E. (approx.)
Abridged description Occ. ev. 10 sec.
Charts 185-1221.
Publications Kyusyu Coast Pilot (Pub. 4), p. 282-Light List Vol. I (Pub. 100A), No. 1072-H.O. Light List Vol. II, No. 2040.

Authority Lighthouse Bureau. (691428(2))
(N.M. No. 23, 1948).

452 (T.) Kyusyu, W. coast Miike Harbor approach—Mine-no-Su Light buoy not burning

Description Mine-no-Su Light Buoy, southwestward of Miike Harbor, has been reported not burning.
Position South end of Mine-no-Su (shoal).
32°56.7′N., 130°22.6′E. (approx.)
Abridged description Fl. ev. 4 sec. 9M.
Charts 172-169.
Publications Kyusyu Coast Pilot (Pub. 4), p. 195-Light List Vol. I (Pub. 100A), No. 1018.
Authority Hydrographic Bureau. (726151)
(N.M. No 23, 1948).

453 (T.) Kyusyu, W. coast—Omura Wan, S. part Bombing area

Description Bombing area has been assigned in the vicinity of Hutatu Sima, south part of Omura Wan; mariners are warned accordingly.
Area Northward of Nagayo Ura.
32°53′N., 129°52′E. (approx.)
Practise hours From 0730 to 1200 and 1400 to 1600, Mondays thru Fridays (when clear weather).
Chart 1231.
Publication Kyusyu Coast Pilot (Pub. 4), p. 111.
Authority Civilian Merchant Marine Committee. (780233)
(N.M. No. 23, 1948).

454 (T.) Kyusyu, N. coast—Oki-no-Sima, E. ward Air firing range established

Description Air to air firing range has been established in an area westward of Tuno Sima; mariners in the vicinity are cautioned accordingly.
Area Bounded by the following positions.
(a) 34°40′N., 130°20′E.
(b) 34°40′N., 130°40′E.
(c) 34°10′N., 130°40′E.
(d) 34°10′N., 130°10′E.
Hours of operation 0730 to 1600, Mondays through Friday (when clear weather).
Charts 196-180-1003.
Publication Kyushu Coast Pilot (Pub. 4). p. 19.
Authority Civilian Merchant Marine Committee. (780234)
(N.M. No. 23, 1948).

455 China, E. coast Sanmen Bay—Taimun Tao Light established

Description Tung Men Light has been established on the northeast end of Taimun Tao.
Position 560 metres 133½° from Tung Men Island Light.
29°11.6′N., 121°58.1′E. (approx.)
Abridged description Fl. ev. 3 sec. 35m. 13M.
Details Characteristic:-Flashing white every 3 seconds (flash 0.3 second, eclipie 2.7 seconds). Elevation:-35 metres above mean sea level. Visibility:-13 miles. Structure:-Iron lattice tower.
Charts 473-477-439.
Publications E. Coast of China Pilot Vol. II (Pub. 12B), p. 210-Light List Vol. I (Pub. 100A), No. 2401 (inserted).
Authority U.S. N.M. No. 6 (698), 1948.
(N.M. No. 23, 1948).

456 China, E. coast Kitchich Bay—Chilang Rock Light changed

Description Chilang Rock Light is now in operation with changes as indicated.
Position On Chilang Rock.
22°39.2′N., 115°34.3′E. (approx.)
Abridged description Fl. ev. 5 sec. 34m. 17M.
Details Characteristic:-Flashing white every 5 seconds (flash 0.5 second, eclipse 4.5 seconds). Elevation:-34 metres. Visibility:-17 miles. Structure:-White iron framework tower.
Charts 403-432-469-1500-1676-810.
Publications E. Coast of China Pilot Vol. II (Pub. 12B), p. 67-Light List Vol. I (Pub. 100A), No. 2435.
Authority U.S. N.M. No. 9 (1052), 1948.
(N.M. No. 23, 1948).

457 Corrections to charts and publications

(1) Chart 138

(a) A red light is to be inserted on the chart on the head of the north landing pier, northwestward of observatory, Uwazima Harbor, and south landing pier charted about 80 metres southeastward of the new light will be expunged.
Approx. position: 33°13.5′N., 132°33.3′E.

(b) A jetty charted about 360 metres southwestward of the north landing pier above will be expunged together with the light on the head of the jetty. Pontoon pier charted about 280 metres southeastward of the jetty above will be expunged together with the light on the head of the pier.

(c) A bridge charted at the river mouth of Ku-no-mura Kawa, about 800 metres SSE. of the jetty above, is to be expunged.
Approx. position: 33°12.9′N., 132°33.4′E.
(Hydrographic Bureau) (726148)

(2) Inland Sea Pilot (Pub. 2)
Page 293, delete lines 13 and 14 and insert new paragraph as indicated on the paper annexed this notice.
(Hydrographic Bureau) (726148)

(3) Light List Vol. I (Pub. 100A)
Paragraph No. 1440 (correction to O To Light) noticed by N.M. No. 22 (436) of 1948 should be numbered "1940." (Hydrographic Bureau)

(4) Gazetteer of Japanese Coast (Pub. 231B)

"Erratum" pasted inside of the front cover will be deleted and new erratum annexed to this notice will be inserted.

(Hydrographic Bureau).

(1) Inset canceled

Chart No.	Title	Date	Inset to be canceled	Page & col. of Catal,
142	Hiroshima Wan	Oct., 1941	Hiroshima Ko	31-II.

(2) New charts

No.	Title	Scale	Date	Size	Page & col. of Catal.
1112	Hiroshima Ko	1:15,000	Apr., 1948.	½	6-1, 31-III.
1273	Tinkai Ko	1:10,000	Apr.,	½	6-III,
	(Plan) Masan Ko	1:25,000	1948		33-III,

Supplement

(142) Hokkaido, W. coast—Tesio River mouth Depth

Depths of 1.9 metres in the entrance channel charted about 550 metres westward of Tesio River Mouth Light (44°52.7′N., 141°44.8′E. approx.) have been reported changed to about 4 metres each, and the depth in the channel about 300 metres westward of the above light is now 2 metres.

(Chart 40 (Mouth of Tesio Kawa) refers.)

(Hydrographic Bureau) (635235(3))

(143) Honsyu, E. cost—Kamaisi Bay

Wreck removal operation

Wreck removal operation by explosives will be conducted near Kuro Saki, south side of Kamaisi Bay, and the mariners are warned not to approach within 100 metres of the area which is marked by the red flags.

Period: From 0600 to 1700 daily, May 29 through June 30, 1948.

Approx. position: 39°14.7′N., 141°55.1′E.

(Chart 71 refers.)

(Civilian Merchant Marine Committee)

(780235)

(144) Inland Sea—Swept channels

Caution about shipping

Fishing nets have been reported in the fairways near Bingo Nada Swept Channel Light Buoy No. 1, Suo Nada Swept Channel Light Buoy No. 2 and southward of Motoyama Light, Inland Sea, mariners are warned to navigate with caution in the vicinities.

Approx. positions: 34°15.0′N., 133°25.5′E.
33°49.5′N., 131°21.8′E.
33°52.6′N., 131°15.1′E.

(Charts 153, 140 and 127 refer.)

(Civilian Merchant Marine Committee)

(756494)

(145) Inland Sea Simonoseki Strait, E. entrance—Manzyu Sima Light buoy restored

Manzyu Sima Light Buoy (F.W.) which was previously reported not burning was relighted on May 30, 1948.

Approx. position: 33°59.2′N., 131°02.0′E.

(Chart 1225, Light List Vol. I, No. 644 and H.O. Light List Vol. II, No. 1842 refer.)

(Lighthouse Bureau) (691490)

(146) Hydrographic Department Designation changed

The former designation of "The Hydrographic Department" has been changed to "The Hydrographic Bureau, Maritime Safety Board," as from 1 May, 1948. The former organization of "Department (Bu)" has accordingly been abolished and the organization of "Section (Ka)" established, and the functions previously carried out by each "Section (Ka)" have been duly succeded by the same "Section (Ka)."

Hydrographic Bureau, Maritime Safety Board.
- General Affairs Section.
- Accounting Section.
- Survey Section.
- Oceanographic Section.
- Astronomical Section.
- Chart and Publication Section.
- Printing Section.
- Technical Training School, Hydrographic Bureau.

Address: Go-chome, Tsukiji, Chuo-ku, Tokyo (no change).

Occupation designation of address: 18th Street and Utility Avenue.

(Hydrographic Bureau)

(147) Dangers to Navigation

(a) Derelict buoy

Date & time reported	Position	Reference chart	Authority
0200, June 7	About 8 miles N. of Hatu Saki, N. coast of Kyusyu. 34°01′N., 130°34′E.	201	S.S. Syokai Maru No. 3. (787406)

(b) Drifting mines

Date & time reported	Position	Reference chart	Authority
1645, Juue 4	About 1 mile SSW. of Kamon Misaki, S. coast of Kyusyu. 31°09′N., 130°30′E.	221	Kagosima Kaizyo Hoanbu. (787403)
0935, June 5	North Pacific Ocean. 31°15′N., 142°22′E.	1001	S.S. Kosei Maru. (787404)
1900, June 6	About 11 miles SW. of Saru Yama Saki, NW. coast of Honsyu. 37°11.7′N., 136°33.5′E.	120	S.S. Kobun Maru. (787405(2))
0420, June 7	About 1 mile NNE. of Omozi Iwa Light, W. entrance to Simonoseki Strait, Inland Sea 34°01′N., 130°49′E.	201	S.S. Syokai Maru No. 3. (784706)

THE DIET

HOUSE OF REPRESENTATIVES

Report of Promulgation of Law to the Throne and its Notification

On June 4, this House reported the promulgation of the following Law to the Throne and notified the House of Councillors thereof:

Law for Temporary Measures concerning Higher Service Examination Commissioners and Ordinary Service Examination Commissioners.

Bill Introduced

On June 3, the following Bill was introduced by the Cabinet:

Bill concerning the Payment of Dividends or interests of Corporations.

On June 4, the following Bill was introduced by Members:

Bill for special cases of taxation in case when an Agricultural Cooperative Association or the Federation of Agricultural Cooperative Association receives the transfer of property from a city, town or village agricultural association, prefectural agricultural association, or the national agricultural association. (submitted by Tomoaki Naito and 3 others)

And on the same day, the following Bills were introduced by the Cabinet:

Bill of Ministry of Finance Establishment Law.

Bill concerning the Adjustment, etc., of Various Laws resulting from the Enforcement of the Ministry of Finance Establishment Law.

Bill for Partial Amendment to the Temporary Currency Law.

Bill concerning Telegraph and Telephone Charges.

Bill for Partial Amendment to the Mail Law, etc.

Bill concerning special cases of the payment of interests on war bonds.

Bill concerning the Adjustment, etc., of relevant Laws consequent upon the Enforcement of the Law for Establishment of the Prime Minister's Office.

Bill for the Medicine Affairs Law.

On June 5, the following Bills were introduced by the Cabinet:

Bill to Amend a Part of the Account Law.

Bill of the Law concerning special cases of the authority of Assistant-Judges, etc.

On June 7, the following Bills were introduced by the Cabinet:

Bill for the Narcotic Control Law.

General Account Budget for the Fiscal Year 1948-49.

Special Accounts Budget for the Fiscal Year 1848-49.

Bill Received

On June 4, the following Cabinet Bill was received from the House of Councillors:

Bill concerning the merger of the Physical Institution of Radio Waves to the Electrotechnical Laboratory.

Transmitted Bill Received

On June 4, the following Cabinet Bill was sent back from the House of Councillors:

Bill for the Establishment of the Board of Smaller Enterprise.

On June 7, the following Cabinet Bill was sent back from the House of Councillors:

Bill for Partial Amendment to the Law of Fire Defence Organization.

Notification of Bill Received

On June 4, a notice was received that the following Cabinet Bill (sent from this House) had been passed by the House of Councillors:

Bill for Temporary Measures concerning Higher Service Examination Commissioners and Ordinary Service Examination Commissioners.

Notice Received

On June 4, a notice was received that the demand for the withdrawl of the following Bill was made by the Cabinet toward the House of Councillors:

Bill Regulation the serum and similar products for Domestic Animal Use.

Report Received

On June 4, the following report was received from the Cabinet:

Report on the Conditions of the National Treasury at the end of the 4th quarter of the Fiscal Year 1947-48.

Resolution Sent

On June 5, the following resolution was sent by the Secretary-General OIKE to the Foreign Minister ASHIDA and the Cabinet Chief Secretary TOMABECHI for reference:

Resolution concerning expression of sympathy for a Great Disasterous Flood of Oregon of the United States.

Urgent Interpellations Submitted

On June 4, the following urgent interpellations were introduced:

Urgent interpellation concerning the time of introduction of the regular Budget. (submitted by Kikuichiro Yamaguchi)

Urgent interpellation concerning the relief establishments for lepers. (submitted by Toru Sakakibara)

Urgent interpellation concerning the increased production of iron and steel (submitted by Yasuro Taga)

On June 5, the following urgent interpellation was introduced:

Urgent interpellation regarding the Unfair Treatment concerning the examination conducted by the Central Appeal Committee. (submitted by Senzo Higai)

Approval of Government Delegates

On June 5, the President MATSUOKA approved the appointment of the following persons to the Government Delegates for which the Prime Minister ASHIDA had applied:

OTSUKI Yoshikimi, Secretary of the Ministry of Finance
(Chief of the Accounts Section of the Finance Minister's Secretariat)

KITAJIMA Takeo, ditto
(Chief of the General Affairs Bureau of the Accounts Bureau)

Agenda

Agenda of June 4 as follows:
Agenda No. 51
Friday, June 4, 1948
Sitting at 1 p.m.
1. State Minister's Speech.

Agenda of June 5 as follows:
Agenda No. 52
Saturday, June 5, 1948
Sitting at 1. p.m.
1. Interpellations on the State Minister's Speech.

Agenda of June 7 as follows:
Agenda No. 53
Monday June 7, 1948
Sitting at 1 p.m.
1. Interpellation on the State Minister's Speech (continued from previous sitting)

Agenda of June 8 as follows:
Agenda No. 54
Tuesday, June 8, 1948
Sitting at 1 p.m.
1. State Minister's Speech.

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1. Bill for the Agricultural Chemicals Control Law. (submitted by the Cabinet)

LOCAL ADMINISTRATION

Prefectural Assembly

The regular session of Aichi Prefectural Assembly for May was closed on May 15, 1948 after completing the proceedings.

(Aichi-ken)

NOTICE

FACTORY FOUNDATION

June 12, 1948

The Nihon Taika Bofu Company Limited (No. 2, 2-chome, Marunouchi, Chiyoda-ku, Tokyo) has applied here to register preservation of the ownership of the land, buildings, machineries and other equipments belonging to the above company's Fukagawa factory (No. 6-2, 2-chome, Toyozumi-cho, Fukagawa, Koto-ku, Tokyo) with the object of forming the foundation of factory properties.

Any persons, who have claims on the movables belonging to the said foundation, or are entitled to make formal or provisional attachment, or provisional disposition of them, should report within thirty-two days since this notice has been published.

The inventory of the properties belonging to the said foundation is ready here to be read at request of the concerned.

Honjo Branch,
Tokyo Judicial Bureau

June 12, 1948

Whereas Kariya Gohan K.K., No. 17, 6-chome, Shiba Tamura-cho, Minato-ku, Tokyo has applied for registration of preservation of ownership of the buildings, machinery and implements belonging to the Kariya Factory of the Company, No. 13-11, Oaza Kariya, Kariya-mura, Shimohei-gun, Iwate-ken, for the purpose of creating a factory foundation, any person who has a claim over the movable property that is to be included in the aforesaid foundation or any creditor of seizure, provisional seizure or provisional disposition of the abovementioned property shall file his claim with this Office within 32 days from the day of publication of this notice.

The inventory of the said foundation is available at this Office for the inspection of the interested parties.

Miyako Branch,
Morioka Judicial Bureau

REGISTRATION OF SUCCESSION OF COPYRIGHT

June, 1948

Registration Number. Date of Registration.	Title of work.	Date of work, Date of Publication oy Performance.	Name of Author	Object of Registration.	Ground for Registration.
No. 5478, a. May 25, 1948	Complete works of Mitsuzo Sasaki (12 Vols.), (Literature).	Oct. 15, 1918- Nov. 20, 1933. Apr. 15, 1923- Jan. 10, 1934.	Mitsuzo Sasaki.	Succession of Copyright.	Katsu Sasaki (740, 2-chome, Saginomiya-machi, Nakano-ku, Tokyo-to.) succeeded on February 6, 1934. Mikizo Sasaki as owner of the copyright of the abovementioned work.

Ministry of Education

PUBLIC NOTICE

May 11, 1948

Claimants:
Kaname Yamauchi
Aza Oyoshi-shinden, Niki-mura, Ampachi-gun, Gifu-ken

Ichizaemon Kosuga
No. 52, Nishi-2-chome, Tezukayama, Sumiyoshi-ku, Osaka

Hideichi Yumida
No. 89, 3-chome, Yumeno-machi, Hyogo-ku, Kobe

Kotaro Nakano
No. 373, Toyochi, Hosokawa-mura, Mino-gun, Hyogo-ken

Goshi Kaisha Shindo Shoten
No. 21, 3-chome, Awaji-cho, Higashi-ku, Osaka

At the instance of the abovementioned persons the possessors of the share certificates shown on the annexed sheets are hereby requested to notify their claims on the said share certificates and submit the same to this Court by 10.00 a.m., February 14, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Kobe Summary Court

(Annexed sheets abridged)

April 17, 1948

Claimants:
Koreichi Miyamoto
No. 1971, 1-chome, Minami-cho, Hiroshima-shi

Koreichi Miyamoto
No. 1971, 1-chome, Minami-cho, Hiroshima-shi

Yoshiteru Sunada
2-chome, Minami-cho, Hiroshima-shi

Fujio Sakata
No. 447, Matsunaga-cho, Numakuma-gun, Hiroshima-ken

Noboru Yatsuhama
No. 193, Onaga-machi, Hiroshima-shi

Koji Yoshimoto
No. 15, Temma-cho, Hiroshima-shi

Koji Yoshimoto
No. 15, Temma-cho, Hiroshima-shi

Go Murakami
No. 120, 4-chome, Higashi-shinagawa, Shinagawa-ku, Tokyo

Rinjiro Kataoka
Tadokoro-mura, Murachi-gun, Shimane-ken

At the instance of the abovementioned persons the possessors of the share certificates shown on the annexed sheets are hereby requested to notify their claims on the said share certificates and submit the same to this Court by 9.00 a.m., October 26, 1948.

In csse of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Hiroshima Summary Court

(Annexed sheets abridged)

May 10, 1948

Claimants:
Yamanashi Naigai Amimono Kabushiki Kaisha
No. 2691, Takada, Takada-mura, Nishiyashiro-gun, Yamanashi-ken

Fumitake Akabane
No. 1541, Oaza Kiritakasho-machi, Matsumoto-shi, Nagano-ken

At the instance of the abovementioned persons the possessors of the share certificates shown on the annexed sheets are hereby requested to notify their claims on the said share certificates and submit the same to this Court by 9.00 a.m., May 10, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Matsumoto Summary Court

(Annexed sheets abridged)

May 12, 1948

Claimant: Naosaku Shimizu
No. 4928, Kanoezuka-cho, Oi-machi, Shinagawa-ku, Tokyo

At the instance of the abovementioned person the possessors of the share certificate shown on the annexed sheet is hereby requested to notify his claim on the said share certificate and submit the same to this Court by 10.00 a.m., February 10, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificate may be declared null and void.

Takasaki Summary Court

(Annexed sheet abridged)

April 27, 1948

Claimant: Nishino Sangyo Kabushiki Kaisha Kanazawa Shiten
No. 43, Kamizutsumi-machi, Kanazawa-shi

At the instance of the abovementioned person the possessor of the share certificate shown on the annexed sheet is hereby requested to notify his claim on the said share certificate and submit the same to this Court by 10.00 a.m., January 14, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificate may be declared null and void.

Kanazawa Summary Court

(Annexed sheet abridged)

May 14, 1948

Claimant: Makie Takai
No. 60, Imafuku, Wakayama-shi

At the instance of the abovementioned person the possessor of the cheque shown on the annexed sheet is hereby requested to notify her claim on the said cheque and submit the same to this Court by 9.000 a.m., January 13, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said cheque may be declared null and void.

Wakayama Summary Court

(Annexed sheet abridged)

April 9, 1948

Claimant: Chozaburo Igai
No. 12, 1-chome, Nihombashimuro-machi, Chuo-ku, Tokyo

At the instance of the abovementioned person the possessors of the share certificates shown on the annexed sheet is hereby requested to notify his claim on the said share certificates and submit the same to this Court by 10.00 a,m., December 8, 1948.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Ukyo Summary Court

(Annexed sheet abridged)

April 15, 1948

Claimants:
Hajime Hashimoto
No. 2-1010, 3-chome, Minami-machi, Hiroshima-shi

Aiko Ikezawa
c/o Hironaka Minoru, No. 2029, Kuniga, Bofu-shi

Whereas the abovementioned claimants have requested for public notifications with reference to the share certificates described in the attached papers, the possessors of the said share certificates are hereby notified that they report the said share certificates and submit the same to this Court, not later than 9.00 a.m., January 20, 1948.

If they fail to do so by the fixed date, the share certificates may be declared null and void.

Ube Summary Court

(Annexed sheets abridged)

May 13, 1948

Claimant: Yoshi Yamada
No. 43, Suehiro-cho, Gifu-shi

At the instance of the abovementioned person the possessors of the share certificates shown on the annexed sheet is hereby requested to notify his claim on the said share certificates and submit the same to this Court by 10.00 a.m., March 31, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Gifu Summary Court

(Annexed sheet abridged)

May 10, 1948

Claimant: Yonezo Utsumi
Daishichi Tonarigumi, Kitashirakawa, Kamihata-cho, Sakyo-ku, Kyoto-shi

At the instance of the abovementioned person the possessors of the share certificates shown on the annexed sheet is hereby requested to notify his claim on the said share certificates and submit the same to this Court by 10.00 a.m., December 10, 1948.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Ogaki Summary Court

(Annexed sheet abridged)

May 20, 1948

Claimant: Yoneichi Takagi
No. 13, Aza Hananoki, Oaza Anjo, Anjo-machi, Hekikai-gun, Aichi-ken

At the instance of the abovementioned person the possessors of the share certificates shown on the annexed sheet is hereby requested to notify his claim on the said share certificates and submit the same to this Court by 10.00 a.m., January 20, 1949.

In case of failure to notify of and submit the same in accordance with the preceding paragraph by the date fixed, the said share certificates may be declared null and void.

Nagoya Summary Court

(Annexed sheet abridged)

Notice re Dissolution

May 28, 1948

Notice is hereby given that the undermentioned association was dissolved on January 29, 1948, and while it has been applying for the authorization of dissolution to the competent Government office in accordance with the decision made at the general meeting of the association, it was authorized to be dissolved on May 15, 1948. Accordingly the creditors to this association are requested to report their claims within two months from the day of publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Higashi Nihon Kana-ami Kogyo Kyodo Kumiai
(Eastern Japan Wire-netting Industry Cooperative Association)
Liquidator: Yoshitsugu Takai
c/o Saito Bldg., No. 3-7, Takara-cho, Chuo-ku, Tokyo-to.

Notice re Alteration of Organization

May 31, 1948

Notice is hereby given in accordance with the provisions of the Limited Partnership Law that the partners' general meeting of the undermentioned company, held on May 17, 1948 passed a resolution to change the company's organization under the style of the K.K. Kikuno-sha Honten. In this connection any objection to this alteration of organization may be made against the company within 2 months from the day of publication of this notice.

Yugen Kaisha Kikuno-sha Honten
No. 3, 2-chome, Nihombashi Gofukubashi, Chuo-ku, Tokyo

Notice re Dissolution

May 28, 1948

Notice is hereby given that the undermentioned union was dissolved on February 28, 1947. Accordingly the creditors to this company are requested to report their claims within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Zenkoku Kagu Tosei Kumiai
(National Furniture Control Union)
Liquidator: Kaoru Furukawa
c/o Chokichi Endo, No. 2, Otsuka-tsuji-machi, Bunkyo-ku, Tokyo-to

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Notice re Dissolution

June 12, 1948

Notice is hereby given that the undermentioned partnership was dissolved on May 15, 1948, in accordance with the decision made at the general meeting of partners. Accordingly the creditors to this partnership are requested to report their claims within two months from the day of publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Goshi Kaisha Inomata Shokai
(Inomata & Co., Limited Partnership)
Liquidator: Isamu Inomata
No. 22, 3-chome, Asakusa Imado Daito-ku, Tokyo

Amalgamation of Companies

May 30, 1948

Notice is hereby given in accordance with the provisions of the Commercial Code that at the shareholders' and partners' general meetings of the undermentioned companies respectively held on May 30, 1948, it was decided that K.K. Nakasho Kojo should be merged with Goshi Kaisha Murakami Kinzoku Kojo and the former continue to exist succeeding to all the rights and duties of the latter which is to be dissolved on the effectuation of the said amalgamation. In this connection, any creditor who has objection to the above decision is requested to report to that effect within two months from the day of publication of this notice.

K.K. Nakasho Kojo
No. 461, Okino-machi, Adachi-ku, Tokyo
Goshi Kaisha Murakami Kojo
No. 461. Okino-machi, Adachi-ku, Tokyo

Notice re Dissolution

May 31, 1948

Notice is hereby given that the undermentioned partnership was dissolved on May 6, 1948, with the unanimous consent of all the partners. Accordingly the creditors. to this partnership are requested to report their claims within sixty days from the day of publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Nichibei Boeki Sangyo Goshi Kaisha
(Japan-America Trade Industry Limited Partnership)
Liquidator: Suehiko Seki
No. 4, Ogawa-cho, Yokosuka-shi

Notice re Dissolution

April 30. 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Yamato Horyuji Marine Products Co., Ltd.
Liquidator: Sanjiro Fukumoto
No. 37, Tsubai-machi, Nara-shi

Notice re Dissolution

April 29, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Nara-ken Chuwa Marine Products Co., Ltd.
Liquidator: Shoichiro Nakao
No. 37, Tsubai-machi, Nara-shi

Notice re Dissolution

April 19, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Nikken Sangyo Co., Ltd.
Liquidator: Jitsuzo Matsumura
No. 1, Mochiidono-machi, Nara-shi

Notice re Dissolution

April 30, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Nara-ken Chuwa Marine Products Distribution Co., Ltd.
Liquidator: Masanobu Nakano
No. 37, Tsubai-machi, Nara-shi

Notice re Dissolution

April 30, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Koriyama Marine Products Co., Ltd.
Liquidator: Kazuharu Ikutani
No. 37, Tsubai-machi, Nara-shi

Notice re Dissolution

April 30, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Uda Marine Products Co., Ltd.
Liquidator: Ichiro Kanda
No. 37, Tsubai-machi, Nara-shi

Notice re Dissolution

April 30, 1948

According as our company was dissolved, you who have the credit for us should offer it to our company within two months from the day following publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Tambaichi Marine Products Receipt Co., Ltd.
Liquidator: Gensaburo Hagihara
No. 37, Tsubai-machi, Nara-shi

Calling for Claims

June 12, 1948

Notice is hereby given that the undermentioned company was dissolved on October 16, 1947, in accordance with the decision made at the extraordinary general meeting of stockholders. Accordingly the creditors to this company are requested to report their claims within two months from the day of publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Gifu-ken Iyakuhin Haikyu K.K.
(Gifu Prefectural Medicines Distribution Co., Ltd.)
Representative Liquidator: Tatsuji Inoue
No. 26, 1-chome, Moto-machi, Gifu-shi

Notice re Dissolution

May 26, 1948

Notice is hereby given that the undermentioned company was dissolved on May 26, 1948, in accordance with the decision made at the general meeting of partners. Accordingly the creditors to this company are requested to report their claims within two months from the day of publication of this notice.

Any claim failing to be submitted within the aforesaid period shall be excluded from the liquidation.

Goshi Kaisha Yamamoto-gumi Tetsudo-kiki Seisaku-jo
(Limited Partnership Yamamoto Railroad Machinery Manufacturing Plant)
Liquidator: Tokujiro Yamamoto
No. 2017, Oaza Imatsu, Iwakuni-shi

Public Notice

June 12, 1948

This Commission has instructed the following Holding Companies and Designated Person transfer to this Commission the undermentioned securities owned by them.

Any person who has a lien over such securities is requested to report this fact to this Commission within two months from the date of this public notice.

The holder of a lien shall be precluded from exercising, the right prescribed at the latter part of Article 11-2 of the Holding Company Liquidation Commission Ordinance unless a report has been duly made on or before the specified date.

This public notice is made in accordance with Article 13-2 of the Rules of Enforcement of the Holding Company Liquidation Commission Ordinance.

SASAYAMA Tadao
Chairman of the Holding Company Liquidation Commission
No. 1, 2-chome, Uchisaiwai-cho, Chiyoda-ku, Tokyo

Notice

○K.K. Mitsui Honsha (No. 1, 2-chome, Nihombashi Muromachi, Chuo-ku, Tokyo)
K.K. Shin Osaka Hotel 5,000 shs. (All shs. owned)
100 shs. Cert. x 50
K.K. Takata Aluminium Seisakusho 16,000 New shs. (All shs. owned)
100 shs. Cert. x 159, 50 shs. Cert. x 2 (a 50 shs. Cert. in title of Toshio Okamoto)
Fukko Kenchiku Josei K.K. 4,000 shs. (All shs. owned)
100 shs. Cert. x 40
Nihon Hassoden K.K. 10,700 New shs. (All shs. owned)
50 shs. Cert. x 4, 100 shs. Cert. x 35,
1,000 shs. Cert. x 7
Toyo Rayon K.K. 51,730 New shs. (All shs. owned)
10 shs. Cert. x 418, 50 shs. Cert. x 711,
100 shs. Cert. x 120
K.K. Toyoda Jido Shokki K.K. 20,000 New shs. (A part shs. owned)
Receipt on payment against 20,000 shs. x 1
Soei Un-yu Zosen K.K. 3,400 shs. (All shs. owned)
100 shs. Cert. x 34
Taisho Kaijo Kasai Hoken K.K. 222,190 shs. (All shs. owned)
1 shs. Cert. x 110, 10 shs. Cert. x 153,
50 shs. Cert. x 29, 100 shs. Cert. x 401,
1,000 shs. Cert. x 179
Nihon Shimpu K.K. 1,700 New shs. (All shs. owned)
50 shs. Cert. x 34
Tokyo Kaijo Kasai Hoken K.K. 21,868 New shs. (All shs. owned)
1 shs. Cert. x 8, 10 shs. Cert. x 6,
100 shs. Cert. x 218
Nihon Dantai Seimei Hoken K.K. 300 shs. (All shs. owned)
100 shs. Cert. x 3
K.K. Nagoya Kanko Hotel 1,000 shs. (All shs. owned)
100 shs. Cert. x 10
Nihon Kinzoku Kogyo K.K. 96,998 New shs. (All shs. owned)
1 shs. Cert. x 3, 5 shs. Cert. x 1,
10 shs. Cert. x 49, 50 shs. Cert. x 46,
100 shs. Cert. x 942
Fujiya Hotel K.K. 500 New shs. (All shs. owned)
20 shs. Cert. x 25
○K.K. Mitsubishi Honsha (2-chome, Marunouchi, Chiyoda-ku, Tokyo)
K.K. Shin Osaka Hotel 5,000 shs. (All shs. owned)
50 shs. Cert. x 100
Nihon Hassoden K.K. 5,000 New shs. (All shs. owned)
100 shs. Cert. x 10, 1,000 shs. Cert. x 4
Tokyo Kaijo Kasai Hoken K.K. 110, 226 New shs. (All shs. owned)
1 shs. Cert. x 1, 5 shs. Cert. x 1,
10 shs. Cert. x 2, 50 shs. Cert. x 200,
100 shs. Cert. x 112, 1,000 shs. Cert. x 89
K.K. Nagoya Kanko Hotel 1,000 shs. (All shs. owned)
100 shs. Cert. x 10
○Gomei Kaisha Yasuda Hozensha (No. 6, 1-chome, Otemachi, Chiyoda-ku, Tokyo)
Kinki Nihon Tetsudo K.K. 400 New shs. (All shs. owned)
Receipt on payment against 400 shs. x 1
Kaikon Engyo K.K. 500 shs. (All shs. owned)
50 shs. Cert. x 10 (100 shs. in title of Keizo Tanji)
Niigata Ryusan K.K. 100 New shs. (A part shs. owned)
10 shs. Cert. x 10
K.K. Teikoku Hotel 460 New shs. (All shs. owned)
10 shs. Cert. x 1, 50 shs. Cert. x 9
Nihon Hassoden K.K. 1,200 New shs. (A part shs. owned)
10 shs. Cert. x 20, 100 shs. Cert. x 10
Yasuda Kasai Kaijo Hoken K.K. 115,921 shs. (All shs. owned)
1 shs. Cert. x 11, 10 shs. Cert. x 3,726,
50 shs. Cert. x 487, 100 shs. Cert. x 543
Asahi Denka Kogyo K.K. 5,000 New shs. (All shs. owned)
100 shs. Cert. x 50
○Fuji Sangyo K.K. (No. 8, 1-chome, Marunouchi, Chiyoda-ku, Tokyo)
Mizuho Sangyo K.K. 100,000 shs. (All shs. owned)
100 shs. Cert. x 50, 1,000 shs. Cert. x 95
Kodaira Sangyo K.K. 20,000 shs. (All shs. owned)
100 shs. Cert. x 200 (2,500 shs. in title of Jukichi Kodaira)
Ebihara Shatai Kogyo K.K. 13,500 shs. (All shs. owned)
100 shs. Cert. x 135
Showa Koki K.K. 39,700 shs. (All shs. owned)

Receipt on payment against 39,700 shs. x 1
Chitose Kozan K.K. 77,000 shs. (All shs. owned)
1,000 shs. Cert. x 77
Tokyo Nakajima Denki K.K. 40,000 shs. (All shs. owned)
100 shs. Cert. x 10 (800 shs. in title of Kimihei Nakajima, per Each 100 shs. in title of Sukezane Nakamura, Kakuji Sasaki)
1,000 shs. Cert. x 9 (1,000 shs. in title of Kiyoichi Nakajima)
10,000 shs. Cert. x 3 (20,000 shs. in title of Kiyoichi Nakajima)
Kowa Roseki K.K. 125,151 shs. (All shs. owned)
1 shs. Cert. x 1, 10 shs. Cert. x 5,
100 shs. Cert. x 51, 10,000 shs. Cert. x 12
Hirata Boseki K.K. 6,000 shs. (All shs. owned)
1,000 shs. Cert. x 6 (in title of Kiyoichi Nakajima)
Taguchi Sangyo K.K. 8,100 shs. (All shs. owned)
100 shs. Cert. x 81
Fukazawa Koku Kogyo K.K. 12,000 shs. (All shs. owned)
500 shs. Cert. x 24
Nakajima Gas K.K. 10,000 shs. (All shs. owned)
100 shs. Cert. x 100 (2,000 shs. in title of Kiyoichi Nakajima)
Toa Gas K.K. 15,000 shs. (All shs. owned)
100 shs. Cert. x 150
Sanshoku K.K. 6,000 shs. (All shs. owned)
100 shs. Cert. x 60
Yajima Sangyo K.K. 10,000 shs. (All shs. owned)
Receipt on payment against 10,000 shs. x 1
Ofu Sangyo K.K. 50,000 shs. (All shs. owned)
1,000 shs. Cert. x 50
Daido Kinzoku Kogyo K.K. 8,000 shs. (All shs. owned)
Receipt on payment against 8,000 shs. x 1
Ota Kogyo K.K. 3,600 shs. (All shs. owned)
50 shs. Cert. x 29, 10 shs. Cert. x 215
K.K. Tsuruoka Seisakusho 5,000 shs. (All shs. owned)
100 shs. Cert. x 50
Kiriu Seihyo Toka K.K. 2,744 shs. (All shs. owned)
1 shs. Cert. x 94 (90 shs. in title of Kimihei Nakajima)
10 shs. Cert. x 65 (210 shs. in title of Kimihei Nakajima) 50 shs. Cert. x 40
Taiyo Sangyo K.K. 4,000 shs. (All shs. owned)
100 shs. Cert. x 40
Ibaragi Seiko K.K. 4,000 shs. (All shs. owned)
Receipt on payment against 4,000 shs. x 1
Kanazawa Sangyo K.K. 10,000 shs. (All shs. owned)
50 shs. Cert. x 200 (in title of Kiyoichi Nakajima)
Showa Tekko K.K. 5,000 shs. (All shs. owned)
100 sha. Cert. x 50
K.K. Aizu Seisakusho 2,000 shs. (All shs. owned)
Receipt on payment against 2,000 shs. x 1
Umo Sangyo K.K. 6,000 shs. (All shs. owned)
Receipt on payment against 6,000 shs. x 1
K.K. Ashikaga Seisakusho 2,000 shs. (All shs. owned)
100 shs. Cert. x 20
Daido Seishi K.K. 5,000 shs. (All shs. owned)
100 shs. Cert. x 50
Daiwa Sangyo K.K. 10,000 shs. (All shs. owned)
10 shs. Cert. x 175 (in title of Kiyoichi Nakajima)
50 shs. Cert. x 165 (in title of Kiyoichi Nakajima)
Fuji Suisan K.K. 26,000 shs. (All shs. owned)
500 shs. Cert. x 52
K.K. Harada Seisakusho 8,000 shs. (All shs. owned)
50 shs. Cert. x 160
Hojuzan Kogyo K.K. 7,000 shs. (All shs. owned)
50 shs. Cert. x 100, 100 shs. Cert. x 20
Matsuzaki Sangyo K.K. 16,000 shs. (All shs. owned)
100 shs. Cert. x 160
K.K. Kobayashi Kikai Seisakusho 4,000 shs. (All shs. owned)
Receipt on payment against 4,000 shs. x 1
K.K. Koyo Tekkosho 4,000 shs. (All shs. owned)
Receipt on payment against 4,000 shs. x 1
K.K. Marukuni Tekkosho 14,000 shs. (All shs. owned)
Receipt on payment against 14,000 shs. x 1
Nihon Hamalite K.K. 8,000 shs. (All shs. owned)
50 shs. Cert. x 160
Ono Seibyo K.K. 4,000 shs. (All shs. owned)
Receipt on payment against 4,000 shs. x 1
Ozawa Koku Kiki K.K. 9,000 shs. (All shs. owned)
100 shs. Cert. x 90 (in title of Kiyoichi Nakajima)
K.K. Showa Seisakusho 5,000 shs. (All shs. owned)
100 shs. Cert. x 50 (in title of Kiyoichi Nakajima)
Taiyo Kogyo K.K. 5,000 shs. (All shs. owned)
50 shs. Cert. x 100
Taisei K.K. 9,600 shs. (All shs. owned)
10 shs. Cert. x 540, 100 shs. Cert. x 6
Receipt on payment against 3,600 shs. x 1
K.K. Tanaka Koku Kiki Seisakusho 15,000 shs. (All shs. owned)
50 shs. Cert. x 100, 100 shs. Cert. x 100
K.K. Tokyo Kikai Seisakusho 15,000 shs. (All shs. owned)
50 shs. Cert. x 40, 100 shs. Cert. x 130
Kaga Sangyo K.K. 12,500 shs. (All shs. owned)
50 shs. Cert. x 100
Receipt on payment against 5,000 shs. x 1 (in title of Chikuhei Nakajima)
Yonezawa Sangyo K.K. 24,000 shs. (All shs. owned)
100 shs. Cert. x 120, 500 shs. Cert. x 24
Kayaba Sangyo K.K. 16,000 shs. (All shs. owned)
100 shs. Cert. x 10, 1,000 shs. Cert. x 15
K.K. Asahina Tekkosho 6,000 shs. (All shs. owned)
100 shs. Cert. x 60
Nitto Kogyo K.K. 4,000 shs. (All shs. owned)
100 shs. Cert. x 40
Fukui Koki K.K. 3.000 shs. (All shs. owned)
50 shs. Cert. x 60

Tochigiken Chiho Mokuzai K.K. 2,250 shs. (All shs. owned)
10 shs. Cert. x 25, 100 shs. Cert. x 20
Fuji Kogyo K.K. 2,000 shs. (All shs. owned)
100 shs. Cert. x 20
Showa Netsu Shori Kogyo K.K. 1,000 shs. (All shs. owned)
100 shs. Cert. x 10 (in title of Kiyoichi Nakajima)
Akhiken Atan K.K. 2,000 shs. (All shs. owned)
Receipt on payment against 2,000 shs. x 1 (in title of Kiyoichi Nakajima)
Teikoku Sekiyu K.K. 650 New shs. (All shs. owned)
50 shs. Cert. x 13
Nihon Koku Yakin K.K. 2,500 shs. (All shs. owned)
50 shs. Cert. x 50 (in title of Kiyoichi Nakajima)
K.K. Mitsui Honsha 2,000 shs. (All shs. owned)
100 shs. Cert. x 20
Mitsui Bussan K.K. 1,500 shs. (All shs. owned)
100 shs. Cert. x 15
Koyo Kogyo K.K. 4,300 shs. (All shs. owned)
100 shs. Cert. x 8, 500 shs. Cert. x 7
K.K. Mansei Honten 2.000 shs. (All shs. owned)
100 shs. Cert. x 20 (in title of Takao Yoshida)
Takeda Sangyo K.K. 43,000 shs. (All shs. owned)
10 shs. Cert. x 10, 50 shs. Cert. x 10
100 shs. Cert. x 420 — 2,500 shs. in title of Kiyoichi Nakajima; 3,500 shs. in title of Kimihei Nakajima
Kumagaya Kogyo K.K. 38,600 shs. (All shs. owned)
10 shs. Cert. x 60, 50 shs. Cert. x 10
100 shs. Cert. x 375 — 1,000 shs. in title of Kiyoichi Nakajima; 500 shs. in title of Kimihei Nakajima
Tatehayashi Sangyo K.K. 5,000 shs. (All shs. owned)
100 shs. Cert. x 50 — 1,000 shs. in title of Kiyoichi Nakajima; 300 shs. in title of Kimihei Nakajima
Nanao Sangyo K.K. 30,000 shs. (All shs. owned)
Receipt on payment against 10,000 shs. x 1
Receipt on payment against 20,000 shs. x 1 (in title of Kiyoichi Nakajima)
K.K. Sato Tekkosho 20,000 shs. (All shs. owned)
100 shs. Cert. x 200 (1,000 shs. in title of Kiyoichi Nakajima)
Mitaka Bussan K.K. 20,000 shs. (All shs. owned)
100 shs. x 200
Tanaka Spoke K.K. 14,000 shs. (All shs. owned)
100 shs. x 140 (2,000 shs. in title of Kiyoichi Nakajima)
Yamada Kogyo K.K. 4,000 shs. (All shs. owned)
10 shs. Cert. x 5, 50 shs. Cert. x 1
100 shs, Cert. x 39
Yamagata Sangyo K.K. 10,000 shs. (All shs. owned)
100 shs. Cert. x 100
Haruna Sangyo K.K. 79,871 shs. (All shs. owned)
1 shs. Cert. x 11, 10 shs. Cert. x 41
50 shs. Cert. x 113, 100 shs. Cert. x 23,
500 shs. Cert. x 1, 1.000 shs. Cert. x 71
Masuda Seiki K.K. 12,000 shs. (All shs. owned)
100 shs. Cert. x 120
Nihon Kinzoku Seiko K.K. 10,000 shs. (All shs. owned)
100 shs. Cert. x 100
K.K. Tokyo Tankosho 40,000 shs. (All shs. owned)
10 shs. Cert. x 1,850, 50 shs. Cert. x 430 (200 shs. in title of Gonshiro Kimura)
Howa Kogyo K.K. 31,250 shs. (All shs. owned)
10 shs. Cert. x 935 — 850 shs. in title of Kiyoichi Nakajima; 150 shs. in title of Kimihei Nakajima
50 shs. Cert. x 438 (50 shs. in title of Kiyoichi Nakajima)
Daishoji Sangyo K.K. 15,000 shs. (All shs. owned)
Receipt on payment against 15,000 shs. x 2
Tama Sangyo K.K. 59,200 shs. (All shs. owned)
100 shs. Cert. x 42 — 3,900 shs. in title of Kiyoichi Nakajima; 100 shs. in title of Kimihei Nakajima
500 shs. Cert. x 110 (15,000 shs. in title of Kiyoichi Nakajima)
Osaka Tanzo K.K. 4,000 shs. (All shs. owned)
Receipt on payment against 4,000 shs. x 1
Daitoasenso Tokubetsu Kokko Saiken "Ni"-Go ¥7,500.-(All Bonds owned)
¥500.-Cert. x 1, ¥100.-Cert. x 70
Daitoasenso Tokubetsu Kokko Saiken "Ha"-Go ¥9,500.-(All Bonds owned)
¥500.-Cert. x 1, ¥100.-Cert. x 90
Daitoasenso Tokubetsu Kokko Saiken "Ro"-Go ¥1,200.-(All Bonds owned)
¥1,000.-Cert. x 1, ¥100.-Cert. x 2
Daitoasenso Kokko Saiken "To"-Go ¥900.-(All Bonds owned)
¥100.-Cert. x 9
○K.K. Nissan (No. 2, 1-chome, Shiba Tamuracho, Minato-ku, Tokyo)
Nissan Kasai Kaijo Hoken K.K. 153,125 shs. (A part shs. owned)
5 shs. Cert. x 7
10 shs. Cert. x 1,319 — 70 shs. in title of Chiwake Kamiya; 70 shs. in title of Shin Ibuki; 60 shs. in title of Kenji Shimokobe
100 shs. Cert. x 1,394 (500 shs. in title of Kenji Shimokobe)
Nihon Kogyo K.K. 24 shs. (All shs. owned)
1 shs. Cert. x 14, 10 shs. Cert. x 1
K.K. Hitachi Seisakusho 5 shs. (All shs. owned)

1 shs. Cert. x 5

○K.K. Asano Honsha (No. 10-5, 1-chome, Marunouchi, Chiyoda-ku, Tokyo)

Kanto Un-yu K.K. 16,566 shs. (All shs. owned)

1 shs. Cert. x 6, 10 shs. Cert. x 6

100 shs. Cert. x 165

○Furukawa Kogyo K.K. (No. 8, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)

Yamani Denki K.K. 1,500 shs. (All shs. owned)

10 shs. Cert. x 150 { 100 shs. in title of Tei-ichi Sugimoto / 100 shs. in title of Hiroshi Ochiai

Asahi Denka Kogyo K.K. 82,150 New shs. (All shs. owned)

50 shs. Cert. x 51, 100 shs. Cert. x 56,

1,000 shs. Cert. x 74 (200 shs. in title of Shinzo Kuji)

○Shibusawa Dozoku K.K. (No. 126, Haramachi, Bunkyo-ku, Tokyo)

Tokyo Boshi K.K. 1,499 preferred shs. (All shs. owned)

1 shs. Cert. x 9, 10 shs. Cert. x 149

K.K. Teikoku Ginko 17,220 2nd New shs. (All shs. owned)

10 shs. Cert. x 122, 50 shs. Cert. x 120,

100 shs. Cert. x 100

K.K. Nihon Chochiku Ginko 2,100 New shs. (All shs. owned)

100 shs. Cert. x 1, 1,000 shs. Cert. x 2

K.K. Nihon Kogyo Ginko 450 New shs. (All shs. owned)

10 shs. Cert. x 45

Nomura Seimei Hoken K.K. 75 2nd New shs. (All shs. owned)

1 shs. Cert. x 5, 10 shs. Cert. x 7

Taisho Kaijo Kasai Hoken K.K. 696 shs. (All shs. owned)

1 shs. Cert. x 6, 10 shs. Cert. x 29,

50 shs. Cert. x 8

Nihon Kinzoku Kogyo K.K. 2,200 New shs. (All shs. owned)

10 shs. Cert. x 220

Fujiya Hotel K.K. 200 New A shs. (All shs. owned)

20 shs. Cert. x 10

Nitto Kagaku Kogyo K.K. 250 New shs. (All shs. owned)

1 shs. Cert. x 5, 10 shs. Cert. x 2

Chichibu Tetsudo K.K. 3,360 New shs. (All shs. owned)

10 shs. Cert. x 116, 50 shs. Cert. x 44

Daiwa Boseki K.K. 320 New shs. (All shs. owned)

10 shs. Cert. x 32

Daiwa Boseki K.K. 1,280 2nd New shs. (All shs. owned)

10 shs. Cert. x 28, 50 shs. Cert. x 20

K.K. Teikoku Hotel 985 New shs. (All shs. owned)

1 shs. Cert. x 5, 10 shs. Cert. x 98

Seibu Nosan Soko K.K. 300 New shs. (All shs. owned)

1 shs. Cert. x 10, 10 shs. Cert. x 29

Showa Gomu K.K. 259 Ha-Go New shs. (All shs. owned)

1 shs. Cert. x 9, 10 shs. Cert. x 25

○Okura Kogyo K.K. (No. 2-9, 2-chome, Ginza, Chuo-ku, Tokyo)

K.K. Hokkaido Takushoku Ginko 50 New shs. (All shs. owned)

50 shs. Cert. x 1 (in title of Jukuro Kadono)

K.K. Nagoya Kanko Hotel 1,000 shs. (All shs. owned)

50 shs. Cert. x 20

Fujiya Hotel K.K. 500 New shs. (All shs. owned)

20 shs. Cert. x 25

K.K. Shin Osaka Hotel 6,500 shs. (All shs. owned)

100 shs. Cert. x 65 (500 shs. in title of Kishichiro Okura)

Kisha Seizo K.K. 60,000 New shs. (All shs. owned)

100 shs. Cert. x 600

K.K. Teikoku Hotel 4,254 New shs. (All shs. owned)

1 shs. Cert. x 14, 10 shs. Cert. x 159,

50 shs. Cert. x 53 (300 shs. in title of Naosuke Mizoguchi)

Fukko Kenchiku Josei K.K. 3,000 shs. (All shs. owned)

100 shs. Cert. x 30 (200 shs. in title of Jukuro Kadono)

○K.K. Hitachi Seisakusho (No. 5, 2-chome, Otemachi, Chiyoda-ku, Tokyo)

Nihon Hassoden K.K. 26,100 New shs. (All shs. owned)

50 shs. Cert. x 10, 100 shs. Cert. x 56,

1,000 shs. Cert. x 20

○Oji Seishi K.K. (No. 2, 1-chome, Oji, Kita-ku, Tokyo)

K.K. Hattori Kamiten 2,188 New shs. (All shs. owned)

1 shs. Cert. x 8, 10 shs. Cert. x 3

50 shs. Cert. x 43

Dai Nippon Mokuzai Bofu K.K. 5,000 New shs. (All shs. owned)

10 shs. Cert. x 500

Nihon Hassoden K.K. 5,000 New shs. (All shs. owned)

50 shs. Cert. x 100

Kamogawa Kako K.K. 19,000 shs. (All shs. owned)

10 shs. Cert. x 100, 50 shs. Cert. x 346

50 shs. Cert. x 4 (in title of Ko Mizusaki)

50 shs. Cert. x 10 (in title of Tadashi Adachi)

○Tokyo Shibaura Denki K.K. (No. 72, Horikawa-machi, Kawasaki)

Nihon Hassoden K.K. 30,000 New shs. (All shs. owned)

1,000 shs. Cert. x 30

Kansai Denki Jitsugyo K.K. 50 shs. (All shs. owned)

10 shs. Cert. x 5

○Nihon Seitetsu K.K. (No. 2, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)

Nihon Hassoden K.K. 5,000 New shs. (All shs. owned)

10 shs. Cert. x 10, 100 shs. Cert. x 9,

1,000 shs. Cert. x 4

Iwate Tanko Tetsudo K.K. 21,200 New shs. (All shs. owned)

10 shs. Cert. x 6, 100 shs. Cert. x 211

10 shs. Cert. x 4 (in title of Kenji Kawamoto)

○Showa Denko K.K. (No. 304, Akasaka Tameike, Minato-ku, Tokyo)

Nihon Hassoden K.K. 1,000 New shs. (All shs. owned)

100 shs. Cert. x 10

Nihon Carbon K.K. 15,000 New shs. (All shs. owned)

100 shs. Cert. x 150

Nihon Carbon K.K. 45,000 2nd New shs. (All shs. owned)

100 shs. Cert. x 50, 1,000 shs. Cert. x 40

Akahira Mojiri Gyosai Ichiba K.K. 165 shs. (All shs. owned)

10 shs. Cert. x 10 (in title of Uemon Ito)

10 shs. Cert. x 6 (in title of Choto Shoda)

5 shs. Cert. x 1 (Do.)

○Nissan Kagaku Kogyo K.K. (No. 9, 1-chome, Nihombashi Tori, Chuo-ku, Tokyo)

Nihon Hassoden K.K. 750 New shs. (All shs. owned)

50 shs. Cert. x 1, 100 shs. Cert. x 7

○Nihon Yusen K.K. (No. 7, 1-chome, Nihombashi Kabuto-cho, Chuo-ku, Tokyo)

K.K. Shin Osaka Hotel 500 shs. (All shs. owned)

100 shs. Cert. x 5

K.K. Teikoku Hotel 1,000 New shs. (All shs. owned)

50 shs. Cert. x 20

Nihon Hassoden K.K. 2,300 New shs. (All shs. owned)

100 shs. Cert. x 23

Fujiya Hotel K.K. 200 New A shs. (All shs. owned)

20 shs. Cert. x 10

○Kanegafuchi Boseki K.K. (No. 3,475, Oi Yoroi-machi, Shinagawa-ku, Tokyo)

K.K. Jiji Shimpo Sha 1,000 shs. (All shs. owned)

100 shs. Cert. x 10

Toyo Denki Kogyo K.K. 9,000 shs. (All shs. owned)

100 shs. Cert. x 9, 50 shs. Cert. x 162

(200 shs. in title of Aiji Arikawa)

Chiyoda Kasai Kaijo Hoken K.K. 30,000 New shs. (All shs. owned)

1 shs. Cert. x 10, 10 shs. Cert. x 109,

50 shs. Cert. x 200, 100 shs. Cert. x 189

○Katakura Kogyo K.K. (No. 3-2, 3-chome, Kyobashi, Chuo-ku, Tokyo)

Nihon Sanshi Tosei K.K. 66,450 shs. (All shs. owned)

10 shs. Cert. x 10, 50 shs. Cert. x 3,

100 shs. Cert. x 42, 1,000 shs. Cert. x 12,

10,000 shs. Cert. x 5

Nihon Sanshi Seizo K.K. 246,680 shs. (All shs. owned)

10 shs. Cert. x 18, 50 shs. Cert. x 4.

100 shs. Cert. x 23, 1,000 shs. Cert. x 14,

10,000 shs. Cert. x 8, 50,000 shs. Cert. x 3

Teiran Soko K.K. 2,560 shs. (All shs. owned)

10 shs. Cert. x 36, 100 shs. Cert. x 22

(per Each 300 shs. in title of Kanetaro Katakura, Gosuke Imai)

○Fuji Boseki K.K. (No. 1-1, 2-chome, Nihombashi Honcho, Chuo-ku, Tokyo)

Nihon Sanshi Seizo K.K. 700 shs. (All shs. owned)

100 shs. Cert. x 7

○Mitsui Kozan K.K. (No. 1-1, 2-chome, Nihombashi Muromachi, Chuo-ku, Tokyo)

Nihon Hassoden K.K. 7,500 New shs. (All shs. owned)

100 shs. Cert. x 75

K.K. Takada Aluminium Seisakusho 6,000 New shs. (All shs. owned)

100 shs. Cert. x 60

○Hokkaido Tanko Kisen K.K. (No. 2-1, 1-chome, Marunouchi, Chiyoda-ku, Tokyo)

Hokkaido Gas K.K. 500 New shs. (All shs. owned)

10 shs. Cert. x 30, 50 shs. Cert. x 4.

Yubori Tetsudo K.K. 22,280 shs. (A part shs. owned)

10 shs. Cert. x 8, 100 shs. Cert. x 222

Nihon Hassoden K.K. 2,100 New shs. All shs. owned)

100 shs. Cert. x 21

Soei Un-yu Zosen K.K. 6,600 shs. (All shs. owned)

100 shs. Cert. x 66 (per Each 100 shs. in title of Haruo Yamaguchi, Sokichi Tomimoto)

Hokkaido Yogyo K.K. 2,000 shs. (All shs. owned)

100 shs. Cert. x 20 (100 shs. in title of Kesaji Sakai)

○Mitsui Bussan K.K. (2-chome, Nihombashi Muromachi, Chuo-ku, Tokyo)

Nihon Sanshi Tosei K.K. 10,000 shs, (All shs. owned)

10,000 shs. Cert. x 1

Takarabune Reizo K.K. 2,000 shs. (All shs. owned)

50 shs. Cert. x 40

○Mitsubishi Ju Kogyo K.K. (No. 4, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)

K.K. Shimazu Seisakusho 30,000 New shs. (All shs. owned)

50 shs. Cert. x 6, 100 shs. Cert. x 297

Nihon Hassoden K.K. 35,000 New shs. (All shs. owned)

1,000 shs. Cert. x 35

Tokyo Kaijo Kasai Hoken K.K. 6,800 New shs. (All shs. owned)

100 shs. Cert. x 8, 1,000 shs. Cert. x 6

Nihon Kinzoku Kogyo K.K. 16,000 New shs. (All shs. owned)

100 shs. Cert. x 160

○Mitsubishi Kogyo K.K. (No. 4, 1-chome, Marunouchi, Chiyoda-ku, Tokyo)

Kansai Haiden K.K. 18,318 New shs. (All shs. owned)

1 shs. Cert. x 8, 10 shs. Cert. x 31,

50 shs. Cert. x 260, 100 shs. Cert. x 50

K.K. Aikawa Kan 20 shs. (All shs. owned)

1 shs. Cert. x 20

Nihon Hassoden K.K. 10,000 New shs. (All shs. owned)

100 shs. Cert. x 100

K.K. Sado Kanko Hotel 100 shs. (All shs. owned)

10 shs. Cert. x 10 (in title of Masayoshi Ogata)

○Mitsubishi Denki K.K. (No. 2-1, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)

Nihon Hassoden K.K. 15,000 New shs. (All shs.

owned)
100 shs. Cert. x 10, 1,000 shs. Cert. x 14
○Mitsubishi Kasei Kogyo K.K. (No. 6, 6-chome Ginza Nishi, Chuo-ku, Tokyo)
Nihon Tansan Kogyo K.K. 5,000 shs. (All shs. owned)
10 shs. Cert. x 10 (10 shs. in title of Kazuichi Nakahara)
100 shs. Cert. x 49 (per Each 100 shs. in title of Reizo Shimizu, Hosuke Egawa)
○Mitsubishi Shoji K.K. (No. 4, 2-chome, Nihombashi Odenma-cho, Chuo-ku, Tokyo)
Nihon Sanshi Tosei K.K. 8,000 shs. (All shs. owned)
1,000 shs. Cert. x 8
Showa Tokushu Seiko K.K. 10,000 New shs. (All shs. owned)
100 shs. Cert. x 100 (100 shs. in title of Nobuyoshi Amano)
Hakodate Ju-yu Tank K.K. 10,000 shs. (All shs. owned)
50 shs. Cert. x 200 (per Each 100 shs. in title of Keirin Usui; Toshiro Watanabe; Kiyonori Tani; Kai Niida)
Teikoku Kako K.K. 1,000 New shs. (All shs. owned)
50 shs. Cert. x 20 (200 shs. in title of Koji Iino)
K.K. Teikoku Ginko 100 2nd New shs. (All shs. owned)
10 shs. Cert. x 10
○Nihon Denki K.K. (No. 2, Shiba Mita Shikoku-cho, Minato-ku, Tokyo)
Nihon Hassoden K.K. 5,000 New shs. (All shs. owned)
100 shs. Cert. x 10, 1,000 shs. Cert. x 4
○Nihon Kokan K.K. (No. 9-3, 3-chome, Nihombashi Honcho, Chuo-ku, Tokyo)
Nihon Carbon K.K. 1,500 2nd New shs. (All shs. owned)
Receipt on payment against 1,500 shs. x 1
Iwate Tanko Tetsudo K.K. 7,000 New shs. (All shs. owned)
50 shs. Cert. x 140
Liberty Un-yu K.K. 1,600 shs. (All shs. owned)
100 shs. Cert. x 16
○Furukawa Denki Kogyo K.K. (No. 8, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)
Nichibi Shoji K.K. 9,900 New shs. (All shs. owned)
50 shs. Cert. x 4 (per Each 50 shs. in title of Kanema Fukushima; Yukichi Yamada)
100 shs. Cert. x 97 { 300 shs. in title of Motoe Takahashi; 100 shs. in title of Kenichi Sato }
Nihon Kinzoku Kogyo K.K. 48,000 New shs. (All shs. owned)
100 shs. Cert. x 480
○Nihon Kogyo K.K. (No. 7-4, 1-chome, Nihombashi Muromachi, Chuo-ku, Tokyo)
Nihon Hassoden K.K. 100 New shs. (All shs. owned)
50 shs. Cert. x 2

○Naigai Tsusho K.K. (No. 2-9, 2-chome, Ginza, Chuo-ku, Tokyo)
Kisha Seizo K.K. 1,002 New shs. (All shs. owned)
1 shs. Cert. x 2, 10 shs. Cert. x 100
○Hattori Goshi Kaisha (No. 498, Shiba Shirokane Sanko-cho, Minato-ku, Tokyo)
Nihon Hassoden K.K. 1,000 New shs. (All shs. owned)
50 shs. Cert. x 20
Osaka Sumitomo Kaijo Kasai Hoken K.K. 1,500 shs. (All shs. owned)
10 shs. Cert. x 110, 100 shs. Cert. x 4
○K.K. Teitokukai (No. 2, 3-chome, Nihombashi Tori, Chuo-ku, Tokyo)
Tokai Denkyoku Seizo K.K. 120 New shs. (All shs. owned)
10 shs. Cert. x 12
Otaki Tennen Gas K.K. 50 New shs. (All shs. owned)
10 shs. Cert. x 5
Nihon Kasai Kaijo Hoken K.K. 5,049 shs. (All shs. owned)
1 shs. Cert. x 9, 10 shs. Cert. x 114,
100 shs. Cert. x 39
Nihon Kasai Kaijo Hoken K.K. 32,625 New shs. (All shs. owned)
5 shs. Cert. x 1, 10 shs. Cert. x 47,
50 shs. Cert. x 135, 100 shs. Cert. x 254
Nihon Piston-Ring K.K. 1,250 New shs. (All shs. owned)
10 shs. Cert. x 25, 50 shs. Cert. x 20
○Kyodo Kogyo K.K. (No. 10-5, 1-chome, Marunouchi, Chiyoda-ku, Tokyo)
Hinode Kisen K.K. 900 New shs. (All shs. owned)
10 shs. Cert. x 10, 50 shs. Cert. x 16
○Gomei Kaisha Katakura-Gumi (No. 2-4, 3-chome, Kyobashi, Chuo-ku, Tokyo)
Chiyoda Kasai Kaijo Hoken K.K. 10,000 New shs. (All shs. owned)
50 shs. Cert. x 200
○Wakasa Kogyo K.K. (No. 1, 2-chome, Nihombashi Tori, Chuo-ku, Tokyo)
Nihon Yakin Kogyo K.K. 246,100 New shs. (All shs. owned)
50 shs. Cert. x 4,922 (600 shs. in title of Satoru Mori)
○Yamashita K.K. (No. 6, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)
Osaka Sumitomo Kaijo Kasai Hoken K.K. 2,900 shs. (All shs. owned)
10 shs. Cert. x 10, 100 shs. Cert. x 28
○Sanei Fudosan K.K. (No. 11-1, 2-chome, Takara-cho, Chuo-ku, Tokyo)
Shochiku K.K. 250 New shs. (All shs. owned)
50 shs. Cert. x 5
Toyo Koban K.K. 500 New shs. (All shs. owned)
50 shs. Cert. x 10
Tokai Denkyoku Seizo K.K. 1,000 New shs. (All shs. owned)
10 shs. Cert. x 10, 50 shs. Cert. x 18
K.K. Mitsukoshi 800 New shs. (All shs. owned)

10 shs. Cert. x 30, 100 shs. Cert. x 5
Tsukishima Kikai K.K. 100 shs. (All shs. owned)
10 shs. Cert. x 10
K.K. Teikoku Ginko 500 2nd New shs. (All shs. owned)
10 shs. Cert. x 50
K.K. Mitsubishi Ginko 2,000 New shs. (All shs. owned)
1,000 shs. Cert. x 2
Mitsubishi Shintaku K.K. 1,000 shs. (All shs. owned)
100 shs. Cert. x 10
K.K. Nomura Ginko 4,000 New shs. (All shs. owned)
100 shs. Cert. x 40
Nihon Dantai Seimei Hoken K.K. 150 shs. (All shs. owned)
10 shs. Cert. x 15
Nihon Yakin Kogyo K.K. 2,500 New shs. (All shs. owned)
50 shs. Cert. x 50
○K.K. Hayashikane Shoten (No. 61, Takezaki-cho, Shimonoseki)
Ogawajima Hogei K.K. 500 shs. (All shs. owned)
1 shs. Cert. x 10, 5 shs. Cert. x 98
○Nihon Denshin Denwa Koji K.K. (No. 2-1, 1-chome, Shiba Shibaura, Minato-ku, Tokyo)
Koeki Eidan. 5 Capital Participation (All Capital Participation Owned)
Receipt on payment against 5 Capital Participation x 2
○Takakimi Mitsui (No. 42, Azabu Imai-cho, Minato-ku, Tokyo)
Fujiya Hotel K.K. 200 New A shs. (All shs. owned)
20 shs. Cert. x 10
○Takanaru Mitsui (No. 35, Suido-cho, Bunkyo-ku, Tokyo)
Fujiya Hotel K.K. 200 New A shs. (All shs. owned)
20 shs. Cert. x 10
○Hisaya Iwasaki (No. 1, Yushima Kiridoshi-machi, Bunkyo-ku, Tokyo)
Kisha Seizo K.K. 11,440 New shs. (All shs. owned)
10 shs. Cert. x 4, 100 shs. Cert. x 114
○Hikoyata Iwasaki (No. 7, Tatsugaoka-machi, Bunkyo-ku, Tokyo)
Tokyo Kaijo Kasai Hoken K.K. 5,000 New shs. (All shs. owned)
100 shs. Cert. x 50
○Takaya Iwasaki (No. 100-2, Komagome Kamifujimae-machi, Bunkyo-ku, Tokyo)
Hokuetsu Seishi K.K. 1,000 2nd New shs. (All shs. owned)
50 shs. Cert. x 20
○Tsuneya Iwasaki (No. 100, Komagome Kamifujimae-machi, Bunkyo-ku, Tokyo)
Tokyo Kaijo Kasai Hoken K.K. 230 New shs. (All shs. owned)
10 shs. Cert. x 3, 100 shs. Cert. x 2
○Tadao Iwasaki (No. 28, Azabu Iikura Kata-machi, Minato-ku, Tokyo)
Tokyo Kaijo Kasai Hoken K.K. 2,000 New shs. (All shs. owned)
100 shs. Cert. x 20

Fujiya Hotel K.K. 200 New A shs. (All shs. owned)
20 shs. Cert. x 10
Fujiya Hotel K.K. 5 New B shs. (All shs. owned)
1 shs. Cert. x 5
○Taka Iwasaki (No. 2, Azabu Toriizaka-machi, Minato-ku, Tokyo)
Tokyo Kaijo Kasai Hoken K.K. 3,000 New shs. (All shs. owned)
100 shs. Cert. x 30
Fujiya Hotel K.K. 300 New A shs. (All shs. owned)
20 shs. Cert. x 15
Fujiya Hotel K.K. 5 New B shs. (All shs. owned)
1 shs. Cert. x 5
○Katsutaro Iwasaki (No. 1, 2-chome, Kojimachi 2 Bancho, Chiyoda-ku, Tokyo)
Tokyo Kaijo Kasai Hoken K.K. 400 New shs. (All shs. owned)
50 shs. Cert. x 8
K.K. Mitsubishi Ginko 500 New shs. (All shs. owned)
100 shs. Cert. x 5
Mitsubishi Shintaku K.K. 1,000 shs. (All shs. owned)
1,000 shs. Cert. x 1
○Hajime Yasuda (No. 16, Azabu Hiroo-machi, Minato-ku, Tokyo)
Hakodate Dock K.K. 2,270 New shs. (All shs. owned)
10 shs. Cert. x 2, 50 shs. Cert. x 45
K.K. Teikoku Hotel, 166 New shs. (All shs. owned)
1 shs. Cert. x 6, 10 shs. Cert. x 1
50 shs. Cert. x 3
Yasuda Kasai Kaijo Hoken K.K. 3,645 shs. (All shs. owned)
1 shs. Cert. x 5, 10 shs. Cert. x 204,
50 shs. Cert. x 16, 100 shs. Cert. x 8
○Zengoro Yasuda (No. 100, Yocho-machi, Shinjuku-ku, Tokyo)
Tobu Tetsudo K.K. 600 New shs. (All shs. owned)
50 shs. Cert. x 6, 100 shs. Cert. x 3
○Takeo Yasuda (No. 1,847 Toyoda, Hino-machi, Minami Tama-gun, Tokyo)
Yasuda Kasai Kaijo Hoken K.K. 200 shs. (All shs. owned)
1 shs. Cert. x 10, 10 shs. Cert. x 14,
50 shs. Cert. x 1
○Zenhachiro Yasuda (No. 2639, Hojo-machi, Tateyama)
Sakai Seni Kogyo K.K. 900 New shs. (All shs. owned)
10 shs. Cert. x 90
○Soichiro Asano (No. 16, 5-chome, Shiba Tamachi, Minato-ku, Tokyo)
Kanto Seiko K.K. 200 New shs. (All shs. owned)
50 shs. Cert. x 4
○Ryozo Asano (No. 569, Korai, Oiso-machi, Naka-gun, Kanagawa Pref.)
Hinode Kisen K.K. 343 New shs. (All shs. owned)
10 shs. Cert. x 34, 1 shs. Cert. x 3
○Yoshio Asano (No. 57, Shiba Shimo Takanawa, Minato-ku, Tokyo)
Hinode Kisen K.K. 66 New shs. (All shs. owned)
1 shs. Cert. x 6, 10 shs. Cert. x 6

○Hachiro Asano (No. 13, Azabu Higashi Torizaka-machi, Minato-ku, Tokyo)
Kanto Seiko K.K. 2,850 New shs. (All shs. owned)
10 shs. Cert. x 5, 50 shs. Cert. x 36,
100 shs. Cert. x 10
○Kishichiro Okura (No. 7, Kojimachi 2 Ban-cho, Chiyoda-ku, Tokyo)
K.K. Teikoku Hotel 333 New shs. (All shs. owned)
1 shs. Cert. x 3, 10 shs. Cert. x 3,
50 shs. Cert. x 6
Marunouchi Garage K.K. 2,000 shs. (All shs. owned)
100 shs. Cert. x 10 (per Each 100 shs. in title of Aisaku Ishikawa; Shinkichi Osaki; Masao Haikawa; Shuzo Hayakawa: Teiji Hirose; Eijiro Takagi)
1,000 shs. Cert. x 1
○Kumema Okura (No. 2,936, Kugenuma, Fujisawa)
Tsukishima Kikai K.K. 400 shs. (All shs. owned)
100 shs. Cert. x 4
Tsukishima Kikai K.K. 1,000 New shs. (All shs. owned)
100 shs. Cert. x 10
○Suekichi Nakagawa (No. 46, Shiba Takanawa Minami-machi, Minato-ku, Tokyo)
Fujiya Hotel K.K. 50 New A shs. (All shs. owned)
10 shs. Cert. x 5
○K.K. Sumitomo Honsha (No. 22, 5-chome, Kitahama, Higashi-ku, Osaka)
Kinki Nippon Tetsudo K.K. 375 New shs. (All shs. owned)
5 shs. Cert. x 1, 10 shs. Cert. x 2,
50 shs. Cert. x 7
Kaikon Engyo K.K. 5,000 shs. (All shs. owned)
50 shs. Cert. x 100
K.K. Shin Osaka Hotel 10,860 shs. (All shs. owned)
10 shs. Cert. x 6, 50 shs. Cert. x 2
100 shs. Cert. x 107 (500 shs. in title of Shinnosuke Furuta; per Each 200 shs. in title of Konosuke Mizuno; Shigeru Gunji; Keizo Seki)
Kisha Seizo K.K. 1,436 New shs. (All shs. owned)
1 shs. Cert. x 6, 100 shs. Cert. x 13
10 shs. Cert. x 13 (100 shs. in title of Yoshio Tanaka)
K.K. Teikoku Hotel 500 New shs. (All shs. owned)
50 shs. Cert. x 10
Nihon Hassoden K.K. 700 New shs. (A part shs. owned)
100 shs. Cert. x 7
K.K. Nagoya Kanko Hotel 1,000 shs. (All shs. owned)
100 shs. Cert. x 10
"I"-Go Tokushu Kokko Saiken ¥20,000.-(All Bonds owned)
Registered Receipt against ¥20,000.-x 1
○Kawasaki Jukogyo K.K, (No. 38, Akashi-cho, Ikuta-ku, Kobe)
Nihon Carbon K.K. 50,000 2nd New shs. (All shs. owned)
1,000 shs. Cert. x 50
Nihon Carbon K.K. 50,000 Def. shs. (All shs. owned)
1,000 shs. Cert. x 50 with a 2nd payment Receipt
○Nichiden Kogyo K.K. (No. 1, Soze-cho, Kita-ku, Osaka)
Nihon Suiso Kogyo K.K. 6,200 shs. (All shs. owned)
10 shs. Cert. x 355 (per Each 10 shs. in title of Junnosuke Okamoto; Eijiro Arai)
50 shs. Cert. x 49, 100 shs. Cert. x 2 (in title of Takegoro Saito)
K.K. Nagoya Kanko Hotel 500 shs. (All shs. owned)
50 shs. Cert. x 8 (in title of Kei-ichi Takatsu)
10 shs. Cert. x 10 (in title of Kei-ichi Takatsu)
○Yamashita Kisen K.K. (No. 6, 2-chome, Marunouchi, Chiyoda-ku, Tokyo)
Nihon Hassoden K.K. 500 New shs. (All shs. owned)
50 shs. Cert. x 10
Nihon Kinzoku Kogyo K.K. 2,000 New shs. (All shs. owned)
50 shs. Cert. x 40
○Daiken Sangyo K.K. (No. 1, Soze-cho, Kita-ku, Osaka)
Kokoku Jinken Pulp K.K. 61,700 shs. (All shs. owned)
10 shs. Cert. x 50, 50 shs. Cert. x 724,
100 shs. Cert. x 250
K.K. Iwataya 900 New shs. (All shs. owned)
50 shs. Cert. x 18
○Dai Nihon Boseki K.K. (No. 30, 2-chome, Azuchi-machi, Higashi-ku, Osaka)
K.K. Shin Osaka Hotel 500 shs. (All shs. owned)
10 shs. Cert. x 50
○Gunze Seishi K.K. (No. 62, Aono, Ayabe-machi, Kajika-gun, Kyoto)
Teisan Soko K.K. 1,000 shs. (All shs. owned)
100 shs. Cert. x 10
○Naigai Men K.K. (No. 1, 2-chome, Koraibashi, Higashi-ku, Osaka)
Nitto Kagaku Kogyo K.K. 750 New shs. (All shs. owned)
50 shs. Cert. x 15
Toyo Koban K.K. 2,400 New shs. (All shs. owned)
10 shs. Cert. x 20, 50 shs. Cert. x 44
Tokyo Kaijo Kasai Hoken K.K. 90 New shs. (All shs. owned)
10 shs. Cert. x 4, 50 shs. Cert. x 1
○Toyo Boseki K.K. (No. 8, 2-chome, Dojima-Hamadori, Kita-ku, Osaka)
K.K. Shin Osaka Hotel 500 shs. (All shs. owned)
10 shs. Cert. x 50
○Daiwa Boseki K.K. (No. 1, Soze-cho, Kita-ku, Osaka)
Hokuriku Haiden K.K. 1,000 New shs. (All shs. owned)
10 shs. Cert. x 100
○K.K. Kobe Seikosho (No. 1, Wakihama-cho, Fukiai-ku, Kobe)
Nihon Carbon K.K. 50,000 Def. shs. (All shs. owned)
1,000 shs. Cert. x 50 with 2nd payment Receipt
○Fuso Kinzoku Kogyo K.K. (No. 55, 4-chome, Azuchi-machi, Higashi-ku, Osaka)
Kisha Seizo K.K. 16,136 New shs. (All shs. owned)
1 shs. Cert. x 6, 10 shs. Cert. x 3,

100 shs. Cert. x 161
Nihon Pipe Seizo K.K. 53,995 New shs. (All shs owned)
5 shs. Cert. x 1, 10 shs. Cert. x 4,
50 shs. Cert. x 1, 100 shs. Cert. x 539
○Goshi-Kaisha Tatsuma Honke Shoten (No. 52, Kotobuki-cho, Nishinomiya)
Dowa Kasai Kaijo Hoken K.K. 22,898 shs. (All shs. owned)
1 sh. Cert. x 198, 5 shs. Cert. x 100,
10 shs. Cert. x 100, 50 shs. Cert. x 100,
100 shs. Cert. x 162
Tokyo Kaijo Kasai Hoken K.K. 3,258 New shs. (All shs. owned)
1 sh. Cert. x 8, 50 shs. Cert. x 1,
100 shs. Cert. x 2, 1,000 shs. Cert. x 3
○Teraka Gomei-Kaisha (3-chome, Kita-Kyutaro-cho, Higashi-ku, Osaka)
K.K. Nihon Kangyo Ginko 150 New shs. (All shs. owned)
50 shs. Cert. x 3
K.K. Okazaki Honten (No. 3, 4-chome, Sakae-cho, Ikuta-ku, Kobe)
Kansai Haiden K.K. 3,929 New shs. (All shs. owned)
1 sh. Cert. x 9, 10 shs. Cert. x 57,
50 shs. Cert. x 67
Dowa Kasai Kaijo Hoken K.K. 50,620 shs. (A part shs. owned)
1 sh. Cert. x 5, 5 shs. Cert. x 3,
10 shs. Cert. x 65, 50 shs. Cert. x 177,
100 shs. Cert. x 411
○Motoo Sumitomo (No. 69, Gun-ya Shimoyamada, Mikage-machi, Muko-gun, Hyogo Pref.)
Osaka Sumitomo Kaijo Kasai Hoken K.K. 800 shs. (All shs. owned)
100 shs. Cert. x 8
Tokyo Kaijo Kasai Hoken K.K. 300 New shs. (All shs. owned)
100 shs. Cert. x 3
○Fumihide Nomura (No. 651, Seijo-machi, Setagaya-ku, Tokyo)
K.K. Shin Osaka Hotel 1,000 shs. (All shs. owned)
10 shs. Cert. x 100 (200 shs. in title of Mitsugu Yamanouchi)
Shochiku K.K. 50 New shs. (All shs. owned)
Receipt on payment against 50 shs. x 1
Nihon Kasai Kaijo Hoken K.K. 1,240 shs. (All shs. owned)
10 shs Cert. x 4 (in title of Mitsugu Yamanouchi)
50 shs, Cert. x 24 (in title of Mitsugu Yamanouchi)

Calling for Extraordinary Stockholders' General Meeting

To Stockholders, June 4, 1948

Your presence is cordially requested at the extraordinary stockholders' general meeting to be held at 11 a.m., Saturday, June 26, 1948 at this company, No. 8-4, 2-chome, Ote-machi, Chiyoda-ku, Tokyo in order to bring up the following matters for discussion.

Notice is hereby given in accordance with the provisions of the Articles of Association.

Daiwa Shoken K.K.
(Daiwa Securities Co., Ltd.)
Director and President: Kisaku Matsushima
No. 8-4, 2-chome, Ote-machi, Chiyoda-ku, Tokyo

Subject for Discussion

Bill I. Capital Increase

1. New capital ¥40,375,000 shall be added to authorized capital ¥19,250,000.
2. Increased capital ¥40,375,000 shall be devided into 807,500 stocks and the face-value of one stock shall be ¥50.
3. Allocation of the new stocks shall be one and half new stocks per old stock to the stockholders and those designated as of June 30, 1948, and the rest of new stocks shall be allotted to the workers, relatives and general subscribers in sequence.
4. Unit of allocation of new stocks shall be 10 stocks and fractions less than 10 stocks shall be counted as units.
5. Matters pertaining to the decision of period for application for new shares, method of payment, disposal of non-accepted stocks and increased capital shall be left to the Board of Directors.

Bill No. 2 Partial amendment of the Articles of Association.

I. Articles 4, 5, 6, 7, 12, 13, 15, and 30 of the Articles of Association of this company shall be respectively amended as follows and Article 21-(2) shall be deleted:

1. Article 4. This company will establish its head office at Chiyoda-ku, Tokyo, and its branch offices at Chuo-ku, Tokyo, Osaka-shi, Kyoto-shi, Nagoya-shi, Yokohama-shi, Kobe-shi, Moji-shi, Fukushima-shi, Kanazawa-shi, Okayama-shi, Hiroshima-shi, Fukuoka-shi, Shizuoka-shi, Otaru-shi, Akita-shi, Matsuyama-shi and Niigata-shi.
2. Article 5. The authorized capital of this company shall be ¥59,625,000.
3. Article 6. Public announcement of this company shall be made in "Nihon Keizai Shimbun" published at Tokyo.
4. Article 7. Stocks shall be devided in 1,192,5000 stocks and the face-value of one stock shall be ¥50.
5. Article 12. In case of Article 9, ¥2 and in case of Articles 10 and 11 per stock certificate ¥20 shall be collected.
6. Article 15. The regular general meeting shall be held twice a year; May and November.
7. Article 21-(2). "Appointment, dimissal and resignation of Directorr shall be approved by Japan Securities Exchange" shall be deleted.
8. Article 30. Total amount of the remuneration of the directors and auditors shall be less than 300.000 *yen* a month.

OFFICIAL GAZETTE

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EXTRA — SATURDAY, JUNE 12, 1948

NOTIFICATIONS

Ministry of Labor Notification No. 19

June 12, 1948

The construction code of boilers and special boilers, and the welding code of boilers and special boilers specified in Article 46 of the Labor Standard Law and Article 248 of the Labor Safety and Sanitation Regulations, shall be decided as follows:

Minister of Labor
KATO Kanju

PART I. The Construction Code of Boilers and Special Boilers

Chapter I. Steam Boilers and Hot-Water Boilers of Steel

Section 1. General Rules

Article 1. The construction of the steam boiler and the hot-water boiler made of steel is stipulated in this Chapter I, except when the steam pressure exceeds 60 kg. per cm.^{2} or steam temperature is above 450°C. or locomotive boiler.

Section 2. Materials

Article 2. The construction materials for the steam boilers and the hot-water boilers shall be based on the following items specified in J.E.S. or shall be of superior quality than those specified in the above standard. However, this may be alleviated when any steam boiler or hot-water boilers is designed for the maximum working pressure of 10 kg. per cm.^{2} or less, and the chief of P.L.S.O. gives a special permission after the inspection of providing material:

1. Rolled Steel for Boilers
2. Rolled Steel for General Structures
3. Rolled Steel for Rivets
4. Steel Pipes
5. Castings
6. Malleable Iron
7. Cast Iron (except grade 1)

Rolled steel for general structures may be substituted as rolled steel for boilers and rolled steel for rivets, except when rolled steel is used for the shell, the header or the flue of boiler whose maximum working pressure exceeds 16 kg. per cm^2., or for the portion where steam temperature is above 300°C.

Article 3. When a tensile test piece of normal size is difficult to cut from a specified carbon steel product, the quality of the material may be presumed by the metallographical test and hardness test, and the tensile strength may be determined by multiplying the Brinel's hardness number by 0.36.

If the numerical value of tensile strength in kg. per mm.^{2} obtained by the above method is greater than 39, it shall not be used for the calculation, but 39 instead.

Article 4. The allowable tolerances in size and in weight of the materials are to be in accordance with J.E.S. respectively.

The thickness of steel plate shall be measured exactly to 0.1 mm.

If the thickness of plate is less than the calculated thickness, it may be used when the difference is within the allowable tolerance.

Artticle 5. The tensile strength of steel employed for the calculation shall be in accordance with the following items; however, when the numerical value of tensile strength in kg. per mm.^{2} is less than 36, it may not be used for the calculation, but 36 instead:

1. The minimum value of strength shall be used for those belonging to the same sort and for the same service, when the values of their tensile strengths are known.
2. The value of 39 kg. per mm.^{2} shall be used for the rolled steel for the general structure whose the minimum tensile strength is specified to exceed 39 kg. per mm.^{2}, when it is to be used for shell plates or rivets.
3. The minimum tensile strength specified in J.E.S. shall be used, though the material is in accordance with J.E.S. by the authorized inspection, but the strength is not clearly known.
4. The tensile strength 36 kg. per mm.^{2} shall be used when the tensile strength is not known.

Article 6. When the compression strength of steel is required for the calculation, the same numerical value as the tensile strength may be used.

Article 7. When the shearing strength of steel is required for the calculation, the numerical value of 85 % of the tensile strength may be used.

Article 8. Cast iron or malleable iron shall not

be used for the following parts except for economizers:

1. The parts sustaining internal pressure and exposing to the combustion gas;
2. The box shape casting which is composed of flat surfaces and when its inside section perpendicular to the longitudinal axis can not be inserted in 200 mm. square. But this restriction does not apply to valves or other accessories used for the steam pressure of 10 kg. per cm^2. or less.
3. The parts sustaining pressure exceeding 16 kg. per cm.^{2};
4. The parts exposed to steam or water of high temperature exceeding 250°C.

Article 9. The gas pipe authorized by J.E.S. may be used for steam pipe, feed water pipe or blow off pipe under the following items, in spite of the rule in Article 2:

1. When nominal bore is $2^1/_2$ inches or less and its maximum working pressure is 16 kg. per cm.^{2} or less;
2. When nominal bore is 3 inches or less and its maximum working pressure is 10 kg. per cm.^{2} or less.

Article 10. Especially long steel pipes may be jointed by weld.

Section 3. Construction

Part 1. General Construction

Article 11. The steam boiler must be so designed as to stand those stresses due to the weight of filled up water, the loads to the parts supported by cradles, the thermal expansion and the weight loaded upon it.

Article 12. The manhole shall be provided in a suitable place on the shell or on the end plate of the steam boiler, but this is not required when the inside diameter of the shell is less than 650 mm. and its length is less than 1,000 mm. or when the inside diameter of the vertical boiler is less than 1,000 mm., if it is provided with 2 or more of washout holes or inspection holes.

The manhole shall be of anelliptical shape, the major axis being not less than 375 mm. and the minor axis being not less than 275 mm. or shall be of a circular shape, having the diameter not less than 375 mm.

Article 13. For the horizontal smoke tube boiler, a manhole must be provided on the lower portion of front tube plate in addition to the manhole requested in the preceding Article.

But if the inside diameter of the shell is less than 1,200 mm., or if the distance between the tube rows at the vertical centre of tube plate or the distance between the outside row of tubes and the shell plate is 230 mm. or more, a washout hole of suitable size may be substituted for the manhole.

Article 14. The vertical boiler shell shall be provided with two or more washout holes at the lower portion of the shell.

Article 15. The vertical smoke tube boiler shell shall be provided with two or more inspection holes at the height corresponding to the fire crown plate.

Article 16. The shell of vertical water tube boiler shall provide with suitable numbers of washout holes available for the cleaning of the water tubes.

Article 17. A washout hole shall be provided at the lower portion of the front plate of Cornish boiler.

Article 18. The insided diameter of chimny tube of vertical boiler connecting fire box crown plate with the end plate shall be $^1/_6$ or more of the inside diameter of the shell.

Part 2. Seams

Article 19. The longitudinal rivetted seams of the shell shall comply with the following conditions:

1. Single strapped butt joint is not permitted.
2. Lap joint of single row rivetting is not permitted in case the shell or dome is greater than 500 mm. in inside diameter and the maximum working pressure is 5 kg. per cm^2. or more.
3. Lap joint is not permitted in case the shell or dome is greater than 1,000 mm. in inside diameter and the maximum working pressure is 10 kg. per cm.^{2} or more, or in case the tensile strength of the shell plate exceeds 45 kg. per mm.^{2}.
4. Horizontal smoke tube boilers of externally fired type shall be so constructed that the longitudinal seams of the shell shall not be exposed to the flame.

Article 20. The strength of the rivet to be used for the seams shall be greater than the tensile strength of the shell plate required from the calculation of its thickness.

Article 21. The factor of safety of the rivets subjected to the shearing stress shall be 4 or more. However, in case the tensile strength of the rivet material is not known, the allowable shearing stress shall be taken as 7 kg. per mm.^{2}, and in case the temperature is above 300°C., the allowable shearing stress shall be taken as 85 % of the allowable tensile stress specified in Figure 1.

Article 22. The calking edges of the plate shall be beveled to an angle from 75° to 85° (Figure 2).

Article 23. The minimum thickness of double butt strap shall conform to the following formula:

$$t_0 = 0.6\,t + 2 \qquad (1)$$

Where

t_0.....Minimum thickness of butt strap (mm.)

t.....Thickness of shell plate (mm.)

The minimum thickness of a single butt strap for the circumferential seams shall be of the same thickness as the shell plate.

Article 24. The distance between rows of rivets shall conform to the following formulas: (Figure 3)

$$\left.\begin{array}{ll} \text{When } \frac{p}{d} \text{ is 4 or less,} & S \geqq 2d \text{ (longitudinal seams)} \\ & S \geqq 1.75d \text{ (circumferential seams)} \\ \text{When } \frac{p}{d} \text{ is greater than 4,} & S \geqq 2d + 0.1\,(p - 4d) \end{array}\right\} (2)$$

Where

S.....Distance between the rows of rivets (mm.)

d.....Diameter of rivet hole (mm.)

p.....Pitch of rivets in the outside row where each rivet in the inside row lies between two rivets of the outside row (mm.), the outside rivet pitch being subtracted by that of inside row when two rivets in the inside row come between two rivest of the outside row (mm.)

Article 25. The distance 1 (mm.) between the centre line of the rivet hole and edge of the plate shall conform to the following formulas: (Figure 2)

1. For the longitudinal seam of the shell

$$1 = (1.5 - 1.75)d \qquad (3)$$

Where

d.....Diameter of rivet hole (mm.)

2. For the circumferential seam and the like

$$1 = (1.25 - 1.75)d \qquad (4)$$

d.....Diameter of rivet hole (mm.)

Article 26. The maximum pitch of rivets shall conform to the following formula:

$$P = ct + 42 \qquad (5)$$

Where

P.....Maximum pitch (mm.)

t.....Thickness of shell plate (mm.)

c.....Constant to be referred to Table 1

Table 1

No. of Rivets in a Pitch P	Lap Joint	Double Strapped Butt Joint
1	1.30	1.75
2	2.60	3.50
3	3.45	4.60
4	4.15	5.50
5	—	6.00

Article 27. The efficiency of rivetted joint is calculated dividing the minimum value of strength among those computed for each possible mode of failure of the seam seperately using the respective allowable stress, by the calculated strength of the plate of one pitch breadth using the allowable stress of the plate.

The smaller value of thickness shall be taken in the computation when plates of unequal thicknesses are used in lap joint.

When the joint efficiency calculated according to paragraph 1 is more than one, it shall be assumed to be one.

Article 28. The allowable tensile strength of the joint weeded by the forging process shall be presumed to be as 5.5 kg. per mm.^{2} or less.

Part 3. Boiler Plates

Article 29. The steal plate used for the part exposed to steam pressure shall be 6 mm. or more in thickness.

The plate supported by stays, the tube plate, the flanged flue tube, or the furnace wall shall be 8 mm. or more in thickness.

Article 30. The shell plate shall be 8 mm. or more in thickness when it corresponds to one of the following cases:

1. When the maximum pressure exceeds 2.5 kg. per cm.^{2}, and the inside diameter of the shell or the dome exceeds 600 mm.;
2. When the maximum working pressure is 2.5 per cm.^{2} or less and the inside diameter of the shell or the dome exceeds 900 mm.

Article 31. The minimum thickness of the shell plate exposed to internal pressure and the maximum working pressure for the boiler shall be calculated by the following formulas:

$$\left.\begin{aligned} t &= \frac{P.D.}{200fx\eta - p} + 1 \\ p &= \frac{200fx\eta(t-1)}{D+t-1} \end{aligned}\right\} \qquad (6)$$

Where

t.....Minimum thickness of shell plate (mm.)
p.....Maximum working pressure (kg. per cm.^{2})
d.....Inside diameter of shell (mm.)
f.....Tensile strength (kg. per mm.^{2})
x.....Ratio of allowable tensile stress and tensile strength.....$^1/_4$ (in case of welding.....$^1/_{4\cdot 25}$)
When temperature is higher than 300°C., this ratio shall be reduced referring to Figure 1 for carbon steel.
η.....Efficiency of longitudinal seams, but the efficiency of the weakest part shall be applied if there is any part weaker than longitudinal seam.

Article 32. The strength of the circumferential seam shall be stronger than 30% of that for longitudinal seam, but in one of the following cases, the strength of the circumferential seam may be taken as 35% or more of the longitudinal-seam strength:

1. When longitudinal stays or stay tubes can hold 50% or more of the longitudinal load of the shell;
2. When the end plate which is smaller than 50% of the sectional area of shell is fixed to the shell.

Article 33. When the shell plate of smoke tube boiler of externally fixed type is thicker than 16 mm., the plate at the circumferential joint in contact with combustion gases shall be reduced to 16 mm. or less in thickness. (Figure 4)

Article 34. The shape and thickness of the end plate shall comply with the following rules: (Figure 5)

1. In case of semispherical heads $t \geqq to/\eta$
2. In case of semi ellipsoidal heads $a/b \leqq 2.6$
   $t \geqq to/\eta$
3. In case of dished heads $R \leqq D$ $r \geqq 0.06R$
   $r \geqq 3t$ $r > 50$
   $t \geqq to/\eta$
   when $R > D$, it is presumed as flat.
4. In case of flat. $w \geqq 6$ mm. $r \geqq 3t$

Where

t.....Thickness of end plate (mm.)
to.....Thickness of seamless semispherical end plate (mm.)
η.....Efficiency of the seam of end plate
a.....Inside major axis of semiellipsoidal end plate (mm.)
b.....Inside mainor axis of semiellipsoidal end plate (mm.)
R.....Inside radius at the centre of dished end plate (mm.)
D.....Outer diameter of end plate (mm.)
r.....Inside fillet radius of end plate (mm.)
W.....Length of cylindrical portion of end plate, which is in perallel with the shell, measured from the end of shell plate (mm.)

Article 35. The minimum thickness of steel end plate having the pressure on its concave side and the maximum working pressure shall be calculated by the following formulas: (Figures 6 and 7)

1. In case of semispherical heads

$$\left.\begin{aligned} t &= \frac{P.D.}{400fx\eta - p} + 1 \\ P &= \frac{400fx\eta(t-1)}{D+t-1} \end{aligned}\right\} \qquad (7)$$

2. In case of semiellipsoidal heads

$$\left.\begin{aligned} t &= \frac{P.a.V.}{400fx\eta - p} + 1 \\ P &= \frac{400fx\eta(t-1)}{a.V+t-1} \end{aligned}\right\} \qquad (8)$$

3. In case of dished heads

$$\left.\begin{aligned} t &= \frac{P.D_1.W}{400fx\eta - p} + 1 \\ p &= \frac{400fx\eta(t-1)}{D.W+t-1} \end{aligned}\right\} \qquad (9)$$

Where

t.....Minimum thickness of end plate (mm.)
p.....Maximum working pressure (kg. per cm.^{2})
D_1.....Inside diameter of semispherical end plate or the inside diameter of dished end plate at its center (mm.)
a.....Inside major axis of semiellipsoidal end plate (mm.)
f.....Tensile strength (kg. per mm.^{2})
x.....Ratio of the allowable tensile stress to the tensile strength.....$^1/_4$, (in case of welding, $^1/_{4\cdot 25}$)

When the temperature is higher than 300°C., this ratio shall be reduced referring to Figure 1 for the carbon steel.

η.....Efficiency of seam.
W.....Factor for the shape of dished end plate and shall be referred to Figure 6.
V.....Factor for the shape of semiellipsoidal end plate and shall be referred to Figure 7.

The rules stipulated in Article 38 or 61 shall be complied for the minimum thickness or the maximum working pressure of flat end plate.

Article 36. The thickness of end plate provided with a flanged-in manhole or an opening of 150 mm. or more in diameter shall be thicker, by 15% or more (3 mm. at least), than the calculated thickness of a dished end plate, having no opening formed by an inside radius corresponding to 80% of shell diameter, but in case the end plate is supported by a flue tube, this item is not requested.

The height of flange described in the preceding paragraph shall be 3 times or more of the thickness of end plate when the plate thickness is 38 mm. or less, and it shall not be less than the plate thickness plus 75 mm. when the plate is thicker than 38 mm. (Figure 8)

The height of flange shall be measured from the tangential plane defined by the major axis of manhole and the outside surface of end plate.

Article 37. The maximum working pressure of steel and plate with the pressure on convex side shall be 60% of the maximum working pressure calculated by the formula in Art. 35.

Article 38. The minimum thickness and the maximum working pressure of flate plate supported by stays shall be calculated by the following formulas:

1. When the stays are arranged in regular pitches (Figure 9)

$$t = c\sqrt{(a^2+b^2)\,P} \qquad P = \frac{t^2}{c^2(a^2+b^2)} \qquad (10)$$

Where

t.....Minimum thickness of flat plate (mm.)
p.....Max. working pressure (kg. per cm.^{2})
a, b.....Pitch of stays (mm.)
c.....Constant given in Table 2

When the tensile strength of the plate is f kg. per mm.^{2}, the value of C as given in the Table 2 shall be multiplied by

$$\sqrt{\frac{36}{f}}$$

Table 2

Screwed Stays	Calked Head	in contact with Combustion Gases	0.017
		not in contact with Combustion Gases	0.015
	with Head or Nut	in contact with Combustion Gases	0.0155
		not in contact with Combustion Gases	0.0135
Stays provided with Nut and Washer	Contact with Combustion Gases	When the diameter of outside washer is 2/5 or more of stay pitch and its thickness is 2/3 or more of plate thickness	0.013
		When the diameter of outside washer is 3/5 or more of stay pitch and its thickness is 5/6 or more of plate thickness	0.012
		When the diameter of outside washer is 4/5 or more of stay pitch and its thickness is equal to the plate thickness	0.011
	The constant stipulated above shall be increased by 10% when the plate is in contact with the combustion gases at one side having no protection whatever and with the steam on the other side.		
Stay Tube (Screwed)	When the tube end is expanded		0.014
	When the tube and is fixed with nuts		0.0118

2. When the stays are arranged in irregular pitches (Figure 10)

$$\left.\begin{aligned} t &= \frac{1}{2} c (1_1 + 1_2)\sqrt{p} \\ p &= \frac{4t^2}{c^2(1_1+1_2)2} \end{aligned}\right\} \qquad (11)$$

Where

t.....Minimum thickness of flat plat (mm.)
p.....Maximum working pressure (kg. per cm.^{2})
$1_1 \cdot 1_2$.....Pitch of stays (mm.)
c.....Constant defined in the preceding item

3. When the flat plate is reinforced by the gusset stays or by other similar method (Figures 11, 12, 13 & 14)

$$\left.\begin{aligned} t &= 0.014\, d\sqrt{p} \\ p &= 5000 \times \frac{t^2}{d^2} \end{aligned}\right\} \qquad (12)$$

Where

t.....Minimum thickness of flat plate (mm.)
p.....Maximum working pressure (kg. per cm.^{2})
d.....Diameter of maximum circle that can be drawn in the non-reinforced area (mm.)

When the tensile strength of the plate is f kg. per mm.^{2}, the constants 0.014 and 5000 are to be multiplied by $\sqrt{\frac{36}{f}}$ and $\frac{f}{36}$ respectively.

4. When the flat plate is rectanglar, fixed at the periphery (Figure 15)

$$\left.\begin{aligned} t &= 0.053\, n\sqrt{\frac{p}{f_z\left(1+\left(\frac{n}{m}\right)^2\right)}} \\ p &= 356 f_z\left(\frac{1}{m^2}+\frac{1}{n^2}\right)t^2 \end{aligned}\right\} \qquad (13)$$

Where

t.....Minimum thickness of flat plate (mm.)
r.....Maximum working pressure (kg. per cm.^{2})
m.....Long side of rectangle (mm.)
n.....Short side of rectangle (mm.)
f_z.....Allowable tensile stress (kg. per mm.^{2})

for rolled steel, 1/4 of tensile strength (in case of welding, 1/4.25), for steel casting, 1/6 of tensile strength.

When the flat plate which does not contact with the flame is affixed with supplementary plate $^2/_3$ times or more thickness of original plate, the maximum working pressure shall be so calculated as to substitute the value "t" obtained by the following formula in each of the above defined formulas:

$$t = \frac{7}{8}(t_1 + t_2) \qquad (14)$$

Where

t.....Minimum thickness of flat plate (mm.)
t_1.....Thickness of original plate (mm.)
t_2.....Thickness of supplementary plate (mm.)

Article 39. The tube plate of smoke tube boilers shall comply with the conditions defined in the following items:

1. The preceding Article shall be applied in the thickness of flat part of tube plate where group of tubes is not located.
2. The preceding Article shall be applied in the computation of the thickness of tube plate where group of tubes is located and supported by the stay tubes or the stays, but in case the tube ends are merely expanded and the diameter d of tube holes is between 38 (mm.) and 100 (mm.), the thickness of tube plate t (mm.) shall not be less than the value obtained by the following formula:

$$t = 5 + \frac{d}{10} \qquad (15)$$

3. The minimum pitch of tube shall be in accordance with the following formula:

$$p = \left(1 + \frac{4.5}{t}\right)d \qquad (16)$$

4. The thickness of tube plate, not reinforced by stays, stay tubes or some such, shall be calculated by the formula 15, but in this case the load demoted by σ kg. per cm. length of the contacting conditions. (Figure 16)

a. When both ends of tube are only expanded $\sigma \leqq 40$ (kg. per cm.)
b. When one end of tube is expanded and the other end is expanded and bended $\sigma \leqq 50$ (kg. per cm.)
c. When both ends of tube are expanded and bended $\sigma \leqq 70$ (kg. per cm.)

$$\sigma = \frac{p \times \text{area } a.b.c.d.e.f.g.h.\ j.k.l.m.a\ (\text{cm.}^2)}{\eta \times d}$$

Where

p.....Maximum working pressure (kg. per cm.^{2})
d.....Diameter of tube hole (cm.)

When the spaces between the adjacent tube holes are not equal, the mean value of σ calculated about those individual spaces shall be considered.

The bending stress of the plate between the opening shall not be greater than the value obtained by the following formula.

$$f_z = \frac{p}{360\left(1 - 0.7\frac{d}{1}\right)(t/1)^2} \qquad (17)$$

Where

p.....Maximum working pressure (kg. per cm.^{2})
t.....Minimum thickness of tube plate (mm.)
d.....External diameter of tube at joint (mm.)
l.....One side length of a square formed by the four tubes or mean value of two sides of a rectangle considered as formed by the four tubes measured in mm.
f_z.....Bending stress of the plate between the tube holes, which shall be 1/4.5 or less of the tensile strength (kg. per mm.^{2})

5. When the tube plate is stressed by the load due to the crown plate of the combustion chamber, its minimum thickness and maximum working pressure shall be computed by the following formulas: (Figure 17)

$$\left.\begin{aligned} t &= \frac{pwp}{1900(p-d)} \\ p &= \frac{100\, t(p-d)}{wp} \end{aligned}\right\} \qquad (18)$$

Where

t.....Minimum thickness of tube plate (mm.)

p.....Maximum working pressure (kg. per cm.^{2})

p.....Horizontal pitch of smoke tubes (mm.) (Figure 17)

w.....The distance between the tube plate and the plate of the opposite side of the combustion chamber (the length in longitudinal direction of the combustion chamber) (mm.)

d.....Inside diameter of smoke tube (mm.)

6. Any part of tube plate which comes between the tube holes or flue tube and shell, is not required to have stays when the length measured along a radial line from the inner surface of the shell to the centre point of the tangent to any two adjacent tube holes or tube hole and flue tube on the shell sode of such holes does not exceed 1.5 times the pitch of calked head screw stays stipulated in Art. 38.

In this case, however, the distance between the tube hole edges or the edges of tube hole and flue, on which a common tangent is drawn, shall not be greater than the pitch referred to.

Article 40. The ring surface of tube in contact with the tube plate shall have a width of complete ring shown below:

1. In case the tube plate and tube are right angled, 10 mm.
2. In case the tube plate and tube are inclined, 13 mm.

Article 41. The inside diameter of dome shall not be greater than 8/10 times the diameter of the shell.

When the inside diameter of dome is more than 6/10 times the diameter of the shell, the end plate or the shell of the dome shall be stayed to the main shell or the main end plate located below.

Article 42. In the case of dome 600 mm. or less in inside diameter, for which the product of the inside diameter of the dome (mm.) and the maximum working pressure in kg. per cm.^{2} is 7150 or less, the longitudinal joint of the dome may be of lap type and may be single rivetted to the shell; provided it is computed with the factor of safety not less than 8.

Article 43. The allowable tensile stress of the rivets to fix the dome flange to the shall or to the plate of the shell be 5 kg. per mm.^{2} or less.

Article 44. The dome shall be so constructed as to return the condensed water into the main drum.

Article 45. The inside corner radius of flange to fix the dome to the shell shall not be less than twice the thickness of flange plate if it is 25 mm. or less and shall not be less than 3 times its thickness if it is more than 25 mm. (Figure 19)

Article 46. The minimum thickness of plane cylindrical flue and the maximum working pressure shall be based on the following formula:

$$\left.\begin{aligned} t &= \frac{PD}{2400}\left\{1+\sqrt{1+\frac{K\cdot l}{P(l+D)}}\right\}+2 \\ P &= \frac{2400\,t-2)}{\left\{2+\frac{K}{2400}\cdot\frac{D}{(t-2)}\cdot\frac{l}{(l+D)}\right\}D} \end{aligned}\right\} \qquad (19)$$

Where

t.....Minimum thickness of plane cylindrical flue (mm.)

D.....Inside diameter of flue (mm.)

P.....Maximum working pressure (kg. per cm.^{2})

l.....Maximum distance between the stiffeners and shall be as shown in Figures 20 and 21.

k.....Constant and given in Table 3.

Table 3

Kind of Longitudinal Seam	Horizontal Flue	Vertical Flue
Lap Jointed	100	70
Butt Jointed, Forge Welded or Fusion Welded Joint	80	50
Seamless. Forged Welded Fusion, Welded Joint, the Tolerance of Inside Diameter within 1% of the Diameter	75	45

Article 47. The minimum thickness and the maximum working pressure of corrugated flue shall be based on the following formula:

$$\left.\begin{aligned} t &= \frac{PD}{1200} \\ P &= \frac{1200(t-2)}{D} \end{aligned}\right\} \qquad (20)$$

Where

t.....Minimum thickness of corrugated flue (mm.)

D.....Minimum inside diameter of flue (mm.)

P.....Maximum working pressure (kg. per cm.^{2})

Part 4. Openings, Cover Plates and Bottom Plates

Article 48. When Openings of same diameter are arranged with equal pitches on a longitudinal line, the efficiency of shell plate shall be calculated by the following formula: (Figure 22)

$$\eta = \frac{p-d}{p} \qquad (21)$$

Where

p.....Pitch of Opening (mm.)

d.....Diameter of opening (mm.)

When groups of openings of same diameter are arranged symmetrically in succession on a longitudinal line and the arrangement of openings in each group is equal, the efficiency of shell plate shall be calculated by the following formula:

$$\eta = \frac{L-nd}{L} \qquad (22)$$

Where

L.....Length of each group (mm.)

D.....Diameter of opening (mm.)

η.....Number of openings in group

Article 49. When openings of same diameters are arranged regularly on a diagonal line of shell, the efficiency of shell plate shall be determined from Figure 23.

In case the point obtained is located above the curve of equal efficiency for the diagonal and longitudinal ligaments, the efficiency shall be calculated by the following formula:

$$\eta = \frac{p-d}{p} \qquad (23)$$

Where

p.....Longitude pitch in hole (mm.)

d.....Diameter of openings (mm.)

Article 50. When groups of holes are arranged unsymmetrically on the longitudinal line of the shell, the efficiency of shell plate shall be in accordance with the following items:

1. The least value among those calculated by the following formula about the lengths of 1 measured at random, where 1 is taken equal to the inside diameter of shell (in case the internal diameter of shell shall exceeds 1,500 mm., 1,600 mm. is to be adopted): (Figure 24)

$$\eta = \frac{a+b+c+\ldots\ldots}{L} \qquad (24)$$

Where

L.....Inside diameter of shell (mm.)

a, b, c.....Distances between openings (mm.)

2. The least value among those calculated by the following formula about the lengths of r measured at random, where r is taken equal to the internal radius of shall (in case the inside radius of shell exceeds 750 mm., 750 mm. is to be adopted):

But the strength calculated with this efficiency shall be strong enough to hold the 80% of the maximum working pressure.

$$\eta = \frac{a-b-c-\ldots\ldots}{r} \qquad (25)$$

Where

r.....Inside radius of shell (mm.)

a, b, c.....Distances between openings (mm.)

Article 51. The hole bored in the shell plate shall be round or elliptical. In case it is elliptical the minor axis shall be parallel to longitudinal axis of shell.

Article 52. The maximum size of openings in the shell shall be in accordance with the following items:

1. One third the inside diameter of shell when the inside diameter of shell is 1,500 mm. or more;
2. 500 mm. when the inside diameter of shell is less than 1,500 mm., but it shall not exceed one half the inside diameter of shell.

Article 53. No reinforcement shall be needed for openings 50 mm. or less in diameter except the following cases:

1. When reinforcement is necessary on account of the fittings;
2. When the distance between the centers of two openings is less than the sum of diameters of two openings;
3. When the fitting is located on the curved corner of dished cover plate.

Article 54. Any unreinforced opening excepting that for measuring instrument or rivet shall not be bored within the distance equal to the plate thickness from the edge of manhole.

Article 55. In case any unreinforced opening is bored near the welded portion of plate, the distance between the border line of the welded part and the edge of opening shall be at least 25 mm. when the plate thickness is less than 25 mm., not less than the plate thickness when the plate is between 25 mm. and 50 mm. in thickness and not less than 50 mm. when the plate is more than 50 mm. in thickness, except the tube holes bored in the flat portion of tube plate, header or such that.

Article 56. The width of manhole part in recess of packing shall be less than 15 mm. and the thickness of packing shall be less than 6 mm. when tightened up. (Figure 26)

Article 57. The clearance between the opening and the cover plate at any point shall not be more than 3 mm. for the maximum working pressure up to 35 kg. per cm.^{2} and shall not be more than 1 mm. for the maximum working pressure above 35 kg. per cm.^{2}

The height of projection to prevent the protrusion of packing shall be higher than the thickness of packing by 5 mm. or more. (Figure 26)

Article 58. The maximum allowable strength of dished steel cover plate receiving pressure to the concave surface shall be calculated by the following formula:

$$P=\frac{200 f_z(t-1)}{R}-\frac{600}{R(t-1)}\left\{\frac{0.18\,W(r^2-a^2)}{d^2}+1.48\,W\log\frac{r}{a}\right\} \qquad (26)$$

Where

P.....Maximum working pressure (kg. per cm.^{2})

f_z.....Allowable stress (kg. per mm.^{2})

1/4 of tensile strength for rolled steel (in case of welding. 1/4.25), 1/6 of tensile strength for steel casting.

In case carbon steel is exposed to temperature above 300°C the tensile strength shall be multiplied by the ratio given in Figure 1.

t.....Minimum thickness of plate (mm.)

W.....Load on the bolt (kg.), and is the loaded area multiplied by 2 times the max. working pressure.

a.....Distance between the center of cover plate and the center line of width of packing (mm.)

r.....Radius of centre circle of bolts (mm.)

d.....Radius of outer edge of cover plate (mm.)

R.....Radius of spherical part (mm.)

Article 59. The strength of dished cast iron cover plate having the pressure on concave surface shall be calculated by the following formula:

$$t=\frac{12\,PR}{200f+3\,P} \qquad P=\frac{200ft}{12\,R+3\,t} \qquad (27)$$

Where

P.....Max. working pressure (kg. per cm.^{2})

t.....Minimum thickness at the dished portion (mm.)

R.....Inside radius at the center of dished cover plate (mm.), but it shall not be greater than inside diameter of opening.

f.....Tensile strength of cast iron (kg. per mm.^{2})

Article 60. The maximum working pressure of dished steel or cast iron cover plate which is not reinforced by ribs or other methods, having the pressure on the convex surface shall be 60% of that value corresponding to the dished cover plate having the pressure on the concave surface.

Article 61. The minimum thickness or the max. working pressure of flat cover plate or bottom plate shall be calculated by the following formula:

$$\left.\begin{aligned} t&=d\sqrt{\frac{KP}{100f_z}+1} \\ P&=\frac{100f_z(t-1)^2}{Kd^2}\end{aligned}\right\} \qquad (28)$$

Where

t.....Minimum thickness of flat cover plate or bottom place (mm.)

B.....Maximum working pressure (kg. per cm.^{2})

d.....Diameter measured as shown in Figure 27 (mm.)

f_z.....Allowable stress (kg. per mm.^{2})

1/4 of tensile strength for rolled steel (in case of welding. 1/4.25), 1/6 of tensile strength for steel casting.

In case carbon steel is exposed to temperature above 300°C the tensile strength shall be multiplied by the ratio given in Figure 1.

k.....Constant

(a) $k=0.162$ when the cover plate or bottom plate rigidly rivetted or bolted to shell or pipe as shown in Figure 27*a*

(b) $k=0.162$ when the bottom part is integral with the bored part as shown in Figure 27*b* and inside diameter a is not greater than 600 mm., and the thickness of plate is 0.05 d less

(c) $k=0.25$ when the bottom plate is forged integral with shell or pipe as shown in Figure 27*c*

Where inside corner radius is not less than 3 times the thickness of adjacent flange

(d) $k=0.30$, when the cover plate or bottom plate is lap rivetted to the shell or pipe as shown in Figure 27*d* and the inside corver of adjacent flange

(e) $k=0.30\,\dfrac{1.4\,WhG}{H.\,d}$ (29)

When the cover plate or bottom plate is bolted on the flange of shell and pressure is on the flange side as shown in Figure 27*e* and *f*.

h.....The product of the plate surface within the outside circumference of packing or contacting surface multiplied by the max. working pressure (kg.)

d.....Diameter measured as shown in Figure 27 (mm.)

W.....Total load on the bolts (kg.), the product of minimum sectional area of bolts bearing the stress multiplied by allowable stress

hG.....Distance between the edge of diameter d and the bolt centre circle as shown in Figure 27*e* and *f* (mm.)

Article 62. When the maximum diameter of opening provided in the flat plate is greater than 50% of the diameter d shown in Fig. 27, the flat plate shall be designed as a flange fixed with bolts.

Part 5. Reinforcement of Openings

Article 63. The opening located in the shell or end plate shall be reinforced, conforming to the following, relative to the section of hole indicated below: (Figures 28 and 29)

1. When the opening is located in the shell and reinforcement plate is fixed by welding, the plane involving the axis of shell and the center of opening;
2. When the opening is located in the shell and reinforcement plate is fixed by rivetting, the plane involving the axis of shell and the center of opening. In this case, the rivet hole is assumed to be in this section.
3. When the opening is located in the end plate and reinforcement plate is fixed by rivetting, the plane involving approximately the axis of nozzle and the center of opening and rivet hole.

Where $A=[(d+2)+N.d_1](t-1)\eta$ (30)

A.....Sectional area of required reinforcement (mm.^{2})

d.....Diameter of opening in the plane involving the shell and center of the opening (mm.)

d_1.....Diameter of rivet hole (mm.)

t.....Thickness of shell plate or ond plate, but in case of dished end plate, the value shall be calculated, by the formula 9 with w 1 (mm.)

N.....Number of rivets in effective area of reinforcement

η.....The efficiency of longitudinal seam of shell, in case, the opening is not on the seam, and when the part of opening crosses the seam, the value shall be taken as 1.0.

When the reinforcement plate is fixed by welding, $N=0$, $d_1=0$

Article 64. The reinforcement plate shall be provided within the range of effective area.

The effective area of reinforcement shall be the following rectangles on the planes specified in the preceding Article:

1. The center of major side of rectangle shall be on the center line of the opening and the length of major side shall be twice the diameter of opening plus 2 mm.
2. The positions of two major sides of rectangle shall be located apart from the external surface of boiler shell by the smaller distance determined by the following calculations:
   (a) $2\,^1/_2$ times the thickness required for the boiler plate less the corrosion allowance;
   (b) $2\,^1/_2$ times the actual thickness of nozzle wall plus the thickness of reinforcement provided to outside or inside of the boiler shell.

Article 65. When the effective ranges of area for reinforcement for more than two holes lap with one another, it shall be adjusted suitably so that the total effective range shall not be less than the sum of those areas.

Article 66. The sectional areas of following parts coming in the range of reinforcement shall be included into the calculation of reinforcement, but the sectional area of rivet holes shall be exempted:

1. When the opening is located completely in the original shell plate, the sectional area, exceeding the value calculated by the joint efficiency as 1.0. (for the dished and plate W in the formula a is taken as l);
2. When any part of the opening crosses a joint efficiency;
3. The sectional area, exceeding the value required for the welded metal or the nozzle wall.

Article 67. The strength of reinforcement at any section involving the line perpendicular to the surface at the center of the hole multiplied by its allowable tensile strength shall not be less than the strength required to be reinforced in the section.

Article 68. The minimum thickness of the reinforcing ring or flange to be rivetted shall be in accordance with Table 4.

Table 4

Thickness of Plate to be reinforced (mm.)	Minimum Thickness of Reinforcing Ring or Reinforcing Flange (mm.)
6 to 9	6
9.5 to 10	8
11 to 12	9.5
13 to 15	11
16 to 19	13
20 to 23	16
24 to 28	18
29 to 50	19
over 51	25

Article 69. The tensile strength of the reinforcement plate shall not be less than that of plate required to be reinforced.

Even though the strength of reinforcement is greater than the plate strength, it should be presumed to be equal to the latter.

Article 70. The sectional area of cast iron reinforcement ring or flange, rivetted to the shell or other parts of boiler, shall not be less than twice the corresponding sectional area of steel reinforcement ring or flange, and the thickness shall be 16 mm. or more.

Article 71. The strength of rivet or welding, fixing the plate and reinforcement or two reinforcements together, shall not be less than the strength of the portion to be reinforced.

Article 72. The rivet in the preceding Article, fixing the reinforcement shall be presumed as acted by single shear even though it is acted by double shear.

In the calculation of rivets all the number of rivets in the section of which the strength of reinforcement is calculated are to be exempted. The whole or a port of rivets, to be used to fix the reinforcement, may be located at outside of the effective range of reinforcement.

Article 73. In case of rivetting the reinforcement to the manhole of shell 1,200 mm. or more in inside diameter, the rivets shall be arranged in two rows, but the number of rivets of outer row can be reduced to half of inner row. (Figure 30)

Article 74. When a nozzle with a ring or a flange is rivetted on the part where the reinforcement is needed, the total tensile strength of rivets conforming to the allowable stress shall not be less than the load calculated by the miximum working pressure acting to the area enclosed by the calked or seal welded outer edge.

Article 75. The rivets fixing the nozzle shall be arranged so that the nozzle will not break across the rivet holes.

Part 6. Stays

Article 76. The load supported by a through stay shall be presumed to be the product of the area determined by the pitch of stays (when the pitch is not clear, take the area considered to be supported by a stay), from which the area occupied by the stay is reduced, multiplied by the maximum working pressure.

Article 77. The through stay with caulked heads and the length 1,800 mm. or more shall be supported at the distance not more than 1,800 mm. But it is not needed when the through stay 25 mm. or more in diameter or with the sectional area, not less than this having the length 1,800 mm. or more is screwed through the end plates without manhole and is fitted with washers and outs from the outside.

Article 78. When the through stay is tightened with nuts from both outside and inside of the plate, the height of outside not shall be of the standard, and the height of inside nut shall be that of lock nut.

Article 79. When the through stay is spritted to two legs at the end, the each leg shall be strong enough to bear 2/3 of total load of stay and its effective sectional area at the rivetted portion shall be taken not less than 1.25 times the necessary sectional area of the stay. (Figure 31)

This rule shall be similarly apdlied to the stays of T shape or other similar one.

The sum of sectional area of rivets shall be equal to the necessary sectional area of the stay if applicable.

Article 80. When the flat plate fitted in its flanged part on the shell is supported by through stays the distance between the corner end and the center line of the stay nearest to this shall not be greater than the pitch of stays.

Article 81. When a stay is screwed into the plate obliquely, 3 threads or more of the screw shall be fitted to the plate with at least one thread in full.

Article 82. When calking is applied on the head of screwed stay, 2 threads at least shall be projected out from the surface of plate.

Article 83. When the length of stay is not more than 200 mm. tell-tale holes not less than 5 mm. in diameter and the depth not less than 13 mm. beyond the inside surface of plate, shall be provided on both ends of the screwed stay.

When the middle part of screwed stay is reduced to the bottom of thread or less the tell-tale hole shall be bored 13 mm. or more further than the reduced neck of stay.

Article 84. The minimum diameter or the maximum working pressure of through stay or screwed stay shall be calculated by the following formula:

$$P=\frac{75\,fz\,d^2}{a} \qquad d=\sqrt{\frac{aP}{75\,fz}} \qquad (31)$$

Where

p.....Max. working pressure (kg. per cm.^{2})

a.....Area supported by one stay (mm.^{2})

d.....Minimum diameter of the stay (mm.)

f_z.....Allowable tensile stress of the stay, 6 kg. per mm.^{2} or less

Article 85. The height of nut for the stay tube in contact with combustion gas shall not be greater than the thickness of tube plate and it shall be screwed tight on the tube plate.

Article 86. The minimum sectional area or the maximum working pressure of the stay tube shall be calculated by the following formula:

$$P=\frac{95\,fz\,A}{a} \qquad A=\frac{aP}{95\,fz} \qquad (32)$$

Where

p.....max. working pressure (kg. per cm.^{2})

a.....area supported by one stay (mm.^{2})

A.....minimum sectional area of the stay (mm.^{2})

f_z.....allowable tensile stress of the stay, 5.3 kg. per mm.^{2} or less at the bottom of thread

Article 87. The total sectional area of rivets for the diagonal stay fixed to the shell shall not be less than 1.25 times the required sectional area of the diagonal stay.

Article 88. The sectional area of the diagonal stay end fixed to the shell shall not be less than the required sectional area of the rivets.

Article 89. The minimum sectional area or the maximum working pressure of diagonal stay shall be calculated by the following formula:

$$P=\frac{95 fz \cdot AH}{a \cdot L} \qquad A=\frac{a \cdot PL}{95 fz \cdot H} \qquad (33)$$

Where

p.....Max. working pressure (kg. per cm.^{2})

a.....Area supported by one stay (mm.^{2})

A.....Minimum sectional area of the stay (mm.^{2})

L.....Length of diagonal stay (mm.)

H.....Gerpendicular distance from centre of the diagonal stay end fixed on the shell to the surface of flat plate (mm.)

f_z.....Allowable tensile stress of the stay (kg. per mm.^{2}), shall be 6 kg. per mm.^{2} or less

Article 90. The area held by the gusset stay shall be assumed such as enclosed by the lines lying midway between the rivet rows fixing gusset stay, flue tube, shell and others to the end plate. (Figure 32)

Article 91. The angle between the end plate and the straight line, which connects the centres of two rivets, one located at the furthermost end of gussed stay fixing it to the angle iron of the shell and the other one located at lower and of the stay fixing it to the angle iron of the end plate, shall not be less than 60°, except when the stays at both sides are reinforced. (Figure 33)

Article 92. The sectional area of the angle iron which is fixed to the end plate to secure the gusset stay shall not be less than the required sectional area of the longitudinal angle iron fixed to the shell to hold the same stay.

Article 93. The minimum sectional area or the maximum working pressure of gusset stay shall be calculated by the following formula:

$$P=\frac{85 fz \cdot AH}{a \cdot L} \qquad A=\frac{a \cdot PL}{85 fz \cdot H} \qquad (34)$$

Where

P.....Max. working pressure (kg. per. cm.^{2})

a.....Area supported by one stay (mm.^{2})

A.....Minimum sectional area of stay (mm.^{2})

L.....Rean length of gusset stays (mm.)

H.....Perpendicular distance from centre of the gusset stay part fixed on the shell to the surface of flat plate (mm.)

fz.....Allowable tensile stress of the stay (kg. per. mm.^{2}), shall be 6 kg. per mm.^{2} or less

Article 94. When the maximum working pressure is not less than 7 kg. per cm.^{2} and the shell diameter is not less than 900 mm., the angle iron to support the plain and plate shall be so constructed as to transfer the load upon it directly to the shell plate.

Article 95. When channel, angle, or the other shaped steel is rivetted to the end plate and the longitudinal stay is fixed to it, the strength of the shaped steel shall be calculated as a beam and the strength of the end plate is not taken into account.

The distance between the centers of rivets at both ends shall be considered as the span of the beam in the preceding item and the allowable stress shall not be greater than 9 kg. per mm.^{2}

Article 96. When the stay is held by pin subjected to double shear the sectional area of the pin shall not be less than 75% of the area required for the stay and the sectional area of the eye shall not be less than 1.25 times the area required for the stay.

Article 97. The distance between the girder stay and the crown plate shall be 50 mm. or more and both legs shall be tightly in contact with the plate.

Article 98. The compressive stress to be borne by the crown plate at one and of girder stay shall not be greater than the following values:

1. Without sling stay 7.5 kg. per mm.^{2}
2. With sling stay 21.0 kg. per mm.^{2}

Article 99. The minimum thickness or the max. working pressure of girder stay shall be calculated by the following formula:

$$P=\frac{mh^2t}{(s-p_1)p_2 s} \qquad t=\frac{P(s-p_1)p^2 s}{mh^2} \qquad (35)$$

Where

p.....Max. working pressure (kg. per cm.^{2})

p_1.....Pitch of bolts on the stay (mm.)

p_2.....Pitch of the girder (mm.)

t.....Minimum thickness at the center of girder plate (mm.)

h.....Height the center of girder plate (mm.)

s.....Distance between both and supports of the girder (mm.)

m.....Constant referring to Table 5, when the tensile strength is more than 41 kg. per mm.^{2}, the value in the Table 5 shall be multiplied by $f/41$.

Table 5

Number of Stay Bolts	1	2 or 3	4 or 5	6 or 7	8 or more
m.	520	780	870	920	950

Article 100. When a sling stay is employed between the girder stay and shell plate or wrapper plate, the strength of the sling stay shall be strong enough to hold the total load on the girder stay.

Part 7. Headers, Tubes and Nozzles

Article 101. In case of the rectangular box type header, the inside corner radius shall be over 1/3 of the thickness of header plate. (minimum 8 mm.)

When the inside corner radius exceeds 1/10 of inside width in a square box type header, the thickness of plate can be reduced by 10%.

Article 102. The depth of defective groove on the inside of box type header shall not be over 1/20 of the plate thickness. (Maximum is 0.8 mm.)

Article 103. The minimum thickness and the maximum working pressure for the header with circular section shall be calculated by formula (6).

Article 104. The minimum thickness of box type header with rectangular section shall be calculated by the following formula: (Figure 34)

$$\left.\begin{aligned} t_1&=\sqrt{\frac{P}{200 fx}\, m^2+n^2+3\sqrt{\frac{KP}{100 fx}}} \\ t^2&=\frac{P}{200 fx}\cdot\frac{n}{\eta_1}+\sqrt{6\frac{b}{\eta_2}\cdot\frac{P}{100 fx}} \end{aligned}\right\} \qquad (36)$$

Where

p.....Max. working pressure (kg. per cm.^{2})

t_1.....Minimum thickness of header in corner (mm.)

t_2.....Minimum thickness of header in other part than corner (mm.)

f.....Tensile strength (kg. per mm.^{2})

x.....Ratio of allowable stress to tensile strength, 1/4 (1/4. 25 in case of welded header), but when the temperature exceed 300°C in a carbon steel it shall be in accordance with Figure 1.

$2m$.....Inside width of the side with hole (mm.)

$2n$.....Inside width of the side without hole (mm.)

$$K=\frac{1}{3}\cdot\frac{m^3+n^3}{m+n}$$

$$b=ma-\frac{1}{2}a^2-\frac{1}{3}\cdot\frac{m^3+n^3}{m+n}$$

a.....Distance between center line of hole and inside surface (mm.)

η_1, η_2.....Efficiency at the part with holes

$$\eta_1=\frac{p-d}{p}$$

$$\eta_2=\frac{p-d}{p} \qquad \text{in case of} \quad d<m.$$

$$\eta_2=\frac{p-\frac{2}{3}d}{p} \quad \text{in case of} \quad d<1.3\,m.$$

$$\eta_2=\frac{p-\frac{1}{3}d}{p} \quad \text{in case of} \quad d\geqq 1.3\,m.$$

d.....Diameter of hole (mm.)
p.....Langitudinal pitch of holes (mm.)
Average value.....in case the pitch of holes is different each other.

Article 105. The effective thickness of the part where the tube is fitted on the box type header shall be 10 mm. or more regardless of the above two Articles.

Article 106. The minimum thickness or the max. working pressure of smoke tube shall be calculated by the following formula:

$$t=\frac{Pd}{700}+1.5 \qquad P=\frac{700(t-1.5)}{d} \qquad (37)$$

Where
p.....Max. working pressure (kg. per cm.^{2})
t.....Minimum thickness of tube (mm.)
d.....Outer diameter of tube (mm.)

Article 107. The minimum thickness or the max. working pressure of water tube shall be calculated by the following formula:

$$\left.\begin{aligned} t&=\frac{P\cdot d}{1000+P}+1.5 \\ P&=\frac{1000(t-1.5)}{d-t+1.5} \end{aligned}\right\} \qquad (38)$$

Where
p.....Max. working pressure (kg. per cm.^{2})
t.....Minimum thickness of tube (mm.)
d.....Outer diameter of tube (mm.)

The thickness of water tubes of two rows near the flame shall be thicker than that obtained by the above formula by 0.3 mm. or more.

Article 108. The minimum thickness or the max. working pressure of superheater tube shall be calculated by the following formula:

1. In case the steam temperature is not above 350°C.

$$\left.\begin{aligned} t&=\frac{Pd}{800+P}+1.5 \\ P&=\frac{800(t-1.5)}{d-t+1.5} \end{aligned}\right\} \qquad (39)$$

2. In case the steam temperature exceeds 350°C.

$$\left.\begin{aligned} t&=\frac{P\cdot d}{800\frac{x}{0.22}+P}+1.5 \\ P&=\frac{800\frac{x}{0.22}(t-1.5)}{d-t+1.5} \end{aligned}\right\} \qquad (40)$$

Where
p.....Max. working pressure (kg. per cm.^{2})
t.....Minimum thickness of tube (mm.)
d.....Outer diameter of tube (mm.)
x.....Ratio of allowable stress to tensile strength
In case of carbon steel, it shall be in accordance with Figure 1.

Article 109. The minimum thickness or the max. working pressure of steam pipe and feed water pipe shall be calculated by the following formula:

1. Steam pipe (Seamless pipe)

(a) In case the steam temperature is not above 300°C.

$$\left.\begin{aligned} t&=\frac{Pd}{100+P}+2 \\ P&=\frac{1000(t-2)}{d-t+2} \end{aligned}\right\} \qquad (41)$$

(b) In case the steam temperature exceeds 300°C.

$$\left.\begin{aligned} t&=\frac{P\cdot d}{1000\frac{x}{0.25}+P}+2 \\ P&=\frac{1000\frac{x}{0.25}(t-2)}{d-t+2} \end{aligned}\right\} \qquad (42)$$

2. Feed water pipe (Seamless pipe)

$$\left.\begin{aligned} t&=\frac{P\cdot d}{800+P}+2 \\ P&=\frac{800(t-2)}{d-t+2} \end{aligned}\right\} \qquad (43)$$

Where
p.....Max. working pressure (kg. per cm.^{2})
t.....Minimum thickness of pipe (mm.)
d.....Outer diameter of pipe (mm.)
x.....Ratio of allowable stress to tensile strength
In case of carbon steel, it shall be in accordance with figure 1.

Article 110. The minimum thickness or the maximum working pressure of the nozzle shall be calculated by formula (6). But in case of steel casting the thickness shall not be less than 11 mm.

Part 8. Safety Valve and Superheater

Article 111. The valve, valve body and seat of safety valve shall be made of materials corrosion resisting and the steam temperature durable.

The safety valve shall be so constructed that the proper discharge is not obstructed even when the valve is damaged and also the valve seat shall be suitable fixed on the valve body without fear of detaching off.

Article 112. The dead weight safety valve shall be provided with the stopper that checks the lift of valve.

Article 113. A stop valve shall be provided to the steam outlet of the superheater.

Article 114. A safety valve shall be provided near the steam outlet of the superheater and the valve area shall not be less than 25% of total required safety valve area of the boiler.

When no valve is inserted between the boiler and superheater, the safety valve area in the preceding item shall be included into the total required safety valve area of the boiler.

Article 115. The safety valve of superheater shall be so adjusted as to blow in advance to the safety valve of steam boiler.

Article 116. The drain valve shall be provided to the superheater at a suitable position, but it is not required when it is practically unavoilable.

Section 4. Fabrication and Hydraulic Test

Article 117. Any hole shall not be punched when the shell plate is 8 mm. or more in thickness.

When steel plate with thickness less than 8 mm. is punched, the diameter of hole shall be enlarged by 3 mm. at last when it is assembled and the outside edge of holes shall be chamfered.

Article 118. When steel plate to be rivetted is sheared, the width equal to 1/4 or more of plate thickness (minimum 3 mm.) shall be cut off at the sheared edge.

The plate cut by gas flame shall not be used unless the cut surface is smooth.

The provisions prescribed in the two preceding Articles shall not be applied to the plate which is less than 8 mm. in thickness.

Article 119. The ends of shell plates forming the longitudinal joint and butt straps shall be made mechanically to the proper curvature.

Article 120. When local heating is applied to any part of plate, special attentions shall be paid not to cause deformation to other parts beyond the red heat parts.

Welding flame shall not be used for the above process.

Article 121. As to the forged joint, the plate ends shall be lapped not less than the thickness of plate and the thickness at welded joing shall not be greater than 1.5 times the plate thickness and the width of lapped part shall not be less than $2\frac{1}{2}$ times the plate thickness. (Figure 35)

Article 122. When a tube or other part is screwed into the shell, number of full threads to be screwed in shall be greater than the corresponding valve given in Table 6.

When the maximum working pressure is over 10 kg. per cm.^{2} pipe of nominal diameter 3 inches or more shall not be screwed into the shell plate, however, the threaded plug provided to the inspection hole, etc., shall be permitted.

Table 6.

Nominal diameter of pipe screwed in (inches)	No. of full threads screwed	No. of screw threads (per 25.4 mm.)	Minimum length screwed in. (mm.)
up to 3/4	4		
1 & 1 1/4	4	11	9
1 1/2 & 2	5.25	11	12
2 1/2 & 3	9.5	11	22
4 1/2 & 5	11	11	25
7 & 8	14	11	32
9 & 10	16.5	11	38
12	17.75	11	41

When anything other than pipe is screwed into the shell plate, the part screwed in shall be equal to or longer than the length required for the pipe whose gauge diameter corresponds to other diameter of the screwed part.

When number of screw threads is not equal to that given in Table 6, the part to be screwed in shall not be shorter than that given in the table.

Article 123. When stud is screwed into the shell or and plate in order to fix the flange, etc., the length screwed in shall not be less than the diameter of stud.

Article 124. The tolerance of roundness of the end plate or the shell, with internal pressure, shall not exceed 1% (Maximum 20 mm.) of the inside diameter of that section used for calculation. (Figure 36)

In case of lap joint, the tolerance shall not exceed the value of the following formula: (Maximum, the thickness of plate plus 20 mm.)

$$1+\frac{t}{D}\ \% \qquad (44)$$

t.....thickness of plate (mm.)
D.....diameter used for calculation (mm.)

Article 125. The tolerance of the roundness of shell with external pressure shall not be greater than the value specified in Figure 37 about the shell without pressure.

Article 126. The tolerance of the dished or semi ellipsoidal end plate at A or B in Figure 38 shall not be greater than 1.25% of the inside diameter of flanged part.

Article 127. The hydraulic test pressure for the inspection shall be as follows:

1. 2 kg. per cm.^{2} for steam boiler with the maximum working pressure 1 kg. per cm.^{2} or below;
2. Twice the maximum working pressure when it is above 1 and 4.3 kg. per cm.^{2} or below;
3. Pressure of 3 kg. per cm.^{2} to be added to 1.3 times the maximum working pressure when it is above 4.3 and 35 kg. per cm.^{2} or below;
4. Pressure of 10 kg. per cm.^{2} to be added to 1.1 times the maximum working pressure when it is over 35 kg. per cm.^{2};
5. 1.5 times the maximum working pressure for super-heater, header of water tube boiler and fusion or forge welded drum;
6. Pressure of 1 kg. per cm.^{2} to be added to the maximum working pressure when there is not danger of over pressure in case of hot water boilers.

The hydraulic test of item 5 in the preceding paragraph shall be carried out before drilling of holes.

Chapter II.
Construction of Cast Iron Steam Boilers and Cast Iron Hot Water Boilers

Article 128. The construction of cast iron steam boiler and cast iron hot water boiler is stipulated in this Chapter.

Article 129. The cost iron to be used for steam boiler and hot water boiler shall be grade No. 2 to No. 4 of J.E.S. No. 5501.

Article 130. The thickness of body of the steam boiler or hot water boiler shall be 8 mm. or more.

Article 131. The blow-off hole with inside diameter not less than 25 mm. shall be provided at a proper position of the steam boiler or hot water boiler.

Article 132. The hydraulic test pressure of the boiler shall be as follows:

1. 2 kg. per cm.^{2} for steam boiler
2. 4 kg. per cm.^{2} for hot water boiler whose the maximum working pressure is 2 kg. per cm.^{2} (20 m. in water column) or below
3. 1.5 times (minimum 4 kg. per cm.^{2}) the maximum working pressure for hot water boiler when the pressure is more than 2 kg. per cm.^{2} (20 m. in water column)

Chapter III. Special Boilers
Section 1. General Rule

Article 133. The construction of special boilers shall be in accordance with this chapter, but those special boilers employed for the steam pressure above 16 kg. per cm.^{2} or for the steam temperature above 250°C. are not subject to this chapter.

Section 2. Materials

Article 134. The materials for the special boilers shall be in accordance with Article 2, moreover copper plate, copper bars or seamless copper pipes shall be made with the materials specified in J.E.S. or those with superior quality.

Article 135. The allowable tolerance of dimension and weight of materials shall be in accordance with Article 4, and in addition the thickness of copper plate shall be measured exactly to 0.05 mm.

Article 136. Cast iron (excluding special cast iron) shall not be used for the cover plate of special boiler with inside diameter greater than 450 mm. or equivalent in sectional area.

Article 137. In case the tensile strength of annealed copper is not surely known, the tensile strength in temperature up to 100°C. is presumed as 22 kg. per mm.^{2}, but the strength shall be reduced, when the temperature exposed is higher than the above defined, the amount of reduction being 1 kg. per mm.^{2} for every 20°C. of excess temperature.

Section 3. Construction
Part 1. Seams

Article 138. The longitudinal seam of the shell shall be in conformity with the following terms:

1. The single strap butt joint without tell-tale holes or tell-tale grooves is not permitted.
2. The lap joint with single row of rivets is not permitted in case the inside diameter of shell is over 500 mm. and the maximum working pressure is 5 kg. per cm.^{2} or more.
3. The lap joint is not permitted in case the inside diameter of shell is over 1000 mm. and the maximum working pressure is 10 kg. per cm.^{2} or more or the tensile strength of the shell plate is greater than 45 kg. per mm.^{2} except when the plate is not less than 1.8 times the calculated thickness or it is provided with tell-tale holes or tell-tale grooves or it is a duplex shell provided with screwed stays between inside and outside plates.

Article 139. The rivetted joint of copper plate shall be calculated by the following formulas:

(1) Lap joint with single row of rivets

$$\left.\begin{aligned} d&=t+7\\ p&=2d+7\\ l&=1.5\,d \end{aligned}\right\} \qquad (45)$$

(2) Lap joint with double rows of rivets

$$\left.\begin{aligned} d&=t+6\\ p&=2.2\,d+20\\ l&=1.5\,d\\ s&=0.5\,p \end{aligned}\right\} \qquad (46)$$

Where

d.....Diameter of rivet hole (mm.)
t.....Thickness of plate (mm.)
p.....Pitch of rivets (mm.)

l.....Distance between centre line of rivet and edge of plate (mm.)
s.....Distance between centre lines of rows of rivets (mm.)

Article 140. The efficiency of rivetted joint shall be in accordance with Article 27, however, in case of new special boiler, the thickness of plate without corrosion allowance shall be taken for the calculation of the efficiency.

Article 141. The bolted joint is permitted as the substitution for the rivetted one in case of need. The calculation of bolted joint shall be followed for the rivetted joint.

Article 142. The fastening bolts of the cover plate, frequently taken out during the operation, shall refer to the specification shown in Table 7.

The nut of bolts described above shall have height of 3 mm. or more plus the bolt diameter, the thickness of washer for eye bolt shall not be less than 12 mm.

Any bolt less than 1 inch in nominal diameter shall not be employed for the part under pressure with diameter more than 450 mm. or corresponding sectional area.

In this calculation, the area of cover plate under pressure shall be measured at the inside of contracted surface of joint and the sectional area of bolt shall be measured at the bottom of thread.

Table 7.

Nominal Diameter of Bolts (inch)	Maximum Pitch (mm.)	Allowable Tensile Stress in case of Rolled Steel for General Construction	
		In case the cover plate is taken down daily	In case the cover plate is taken down every same weeks
5/8	79	2.5	3.2
3/4	89	3.5	4.1
7/8	95	4.1	4.7
1	102	4.4	5.1
1 1/8	108	4.7	5.4
1 1/4	114	5.1	5.7
1 3/8	120	5.4	6.0
1 1/2	124	5.7	6.3

Article 143. Copper plate shall be soldered by the hard soldering and the efficiency shall not be allowed higher than 80%.

Part 2. Plates

Article 144. The thickness of steel plate under pressure shall be based on Article 29, however, the seamless steel pipe having thickness 4 mm. or more may be used for the boiling kettle.

Article 145. The strength of the anticorrosive inside lining shall not be taken into account in the thickness calculation.

Article 146. The shell plate shall be reinforced against the deformation due to its own weight or its filled substance, or in case the thickness (mm.) is less than the following value:

$$0.001D+2.5 \text{ (mm.)}$$

Where

D.....inside diameter of shell when corroded to the limit of corrosion allowance (mm.)

Article 147. The minimum thickness or the maximum working pressure of steel shell plate under inside pressure shall be based on the following formula:

$$\left.\begin{aligned} t &= \frac{P.D}{200fx\eta-P}+c \\ P &= \frac{200fx\eta(t-c)}{D+t-c} \end{aligned}\right\} \qquad (47)$$

Where

p.....Max. working pressure (kg. per cm.^{2})
t.....Minimum thickness of shell plate (mm.)
D.....Inside diameter of shell plate discounting the corrosion allowance (mm.)
x.....Ratio of allowable tensile stress to the tensile strength, 1.4 for rolled steel and 1.6 for steel casting
f.....Tensile strength (kg. per mm.^{2})
η.....Efficiency of longitudinal seam, but the efficiency for the weakest part shall be taken, if there is such part as weaker than the longitudinal seam.
c.....Corrosion allowance (mm.)

Article 148. The corrosion allowance for steel plate of a special boiler newly built, shall be from 1 mm. to 7 mm.

The corrosion allowance for the copper plate shall be calculated by the following formula, however, it shall not be applied in case the thickness is more than 6 mm.

$$c=0.2(6-t) \qquad (48)$$

Where

c.....Corrosion allowance (mm.)
t.....Thickness of shell plate excluding the corrosion allowance (mm.)

Article 149. The minimum thickness of shell plate holding pressure from outside shall refer to Figures 39 and 40, however, in case L/D is more than 20, it is calculated as 20.

The minimum working pressure taken for calculation shall be 1 kg. per cm.^{2}.

Article 150. The moment of inertia of section of the stiffening ring provided to the shell under outside pressure shall be determined from Figure 41.

Article 151. Where riveting a stiffening ring of angle steel to the shell under outside pressure, the diameter of rivet hole shall not be less than the thickness of shell plate and their pitches shall be referred to the following items or shorter:

1. As to angle shape ring with single row rivet joint, the pitch shall be 7 times the plate thickness;
2. As to I shape ring with single row rivet joint, the pitch on both sides shall be 10 times the plate thickness.

Article 152. The minimum thickness or the maximum working pressure of steel end plate holding the pressure on concave side and the maximum working pressure shall be calculated by the following formulas: (Figures 6 and 7)

1. Semispherical and plate

$$\left.\begin{aligned} t &= \frac{P.D_1}{400fx\eta-P}+C \\ P &= \frac{400fx\eta(t-c)}{D_1+t-c} \end{aligned}\right\} \qquad (49)$$

2. Semi ellipsoidal end plate

$$\left.\begin{aligned} t &= \frac{P.a.V.}{400fx\eta-P}+C \\ P &= \frac{400fx\eta(t-c)}{a.V.+t-c} \end{aligned}\right\} \qquad (50)$$

3. Dished end plate

$$\left.\begin{aligned} t &= \frac{P.D_1W}{400fx\eta-P}+C \\ P &= \frac{400fx\eta(t-c)}{D_1W+t-c} \end{aligned}\right\} \qquad (51)$$

Where

t.....Minimum thickness of end plate (mm.)
p.....Max. working pressure (kg. per cm.^{2})
D_1.....Inside diameter of semi spherical end plate or that of the centre part of dished end plate (mm.)
a.....Inside major axis of semi ellipsoidal end plate (mm.)
f.....Tensile strength (kg. per mm.^{2})
x.....Ratio of allowable stress to tensile strength
1.4 in case of rolled steel
1.6 in case of steel casting
η.....Efficiency of joint
w.....Factor depending upon the shapes of dished end plate which shall be referred to Figure 6
v.....Factor depending upon the shapes of semi ellipsoidal end plate which shall be referred to Figure 7

The minimum thickness or the maximum working pressure of flat end plate shall be based on Article 38 or 156.

Article 153. The maximum working pressure of steel end plate shall be 60% the calculated value for the concave side by the preceding Article.

Article 154. The strength of the dished steel cover plate, holding the pressure on concave surface, shall be calculated by the following formula:

$$P=\frac{200\,fz(t-c)}{R}-\frac{600}{\pi R(t-c)}\left[\frac{0.18\,W(r^2-a^2)}{d^2}+1.48\,W\log\frac{r}{a}\right] \qquad (52)$$

Where

p.....Max. working pressure (kg. per cm.^{2})

fz.....Allowable tensile stress (kg. per mm.^{2})

1/4 of tensile strength for rolled steel

1/6 of tensile strength for steel casting

t.....Minimum thickness of plate (mm.)

w.....Load on the bolt (kg.), assumed as the area holding the pressure multiplied by the max. working pressure

a.....Distance between the center line of cover plate and the center line of breadth of packing (mm.)

r.....Padius of bolt circle (mm.)

d.....Outer diameter of cover plate (mm.)

R.....Padius of spherical part (mm.)

C.....Corrosion allowance (mm.)

Article 155. The strength of dished cast iron cover plate holding the pressure on concave surface shall be calculated by the following formula:

$$\left.\begin{aligned} t&=\frac{12\,P.\,R}{200\,f-3\,P}+c \\ P&=\frac{200\,f(t-c)}{12\,R+3\,t-3\,c} \end{aligned}\right\} \qquad (53)$$

Where

t.....Minimum thickness at dished part (mm.)

R.....Inside radius at the centre of dished part (mm.) but is should not be greater than the inside diameter of hole to which the cover is to be applyed.

f.....tensile strength of cast iron (kg. per mm.^{2})

c.....Corrosion allowance (mm.)

Article 156. The minimum thickness of flat cover plate or the bottom plate and the maximum working pressure shall be calculated by the following formula:

$$\left.\begin{aligned} t&=d\sqrt{\frac{K.\,P}{100\,fz}}+c \\ P&=\frac{100\,fz(t-c)^2}{K\,a^2} \end{aligned}\right\} \qquad (54)$$

Where

t.....Minimum thickness of flat cover plate or bottom plate (mm.)

p.....Max. working pressure (kg. per cm.^{2})

d.....Diameter measured in accordance with Figure 27 (mm.)

fz.....Allowable stress (kg. per mm.^{2})

1/4 of tensile strength for rolled steel

1/6 of tensile strength for steel casting

k.....Constant

(a) K=0.162, in case the cover plate or bottom plate is fixed to the shell or pipe with bolts or rivets as shown by Figure 27 a.

(b) K=0.162, in case the bottom plate is integral with the shell or pipe as shown by Figure 27 b when d is not greater than 600 mm. and the thickness of plate is not greater than 0.05 d.

(c) K=0.25, in case the bottom plate is forged integral with the shell or pipe and the inside corner radius is not less than 3 times the thickness of adjacent flange as shown by Figure 27 c.

(d) K=0.30, in case the cover plate or bottom plate is lap rivetted to shell or pipe as shown by Figure 27 d and inside corner radius is not less than 3 times the thickness of adjacent flange.

(e) In case the cover plate or bottom plate is bolted to the shell, flange or side plate as shown by Figure 27 e and f and pressure is acting on the flange side.

$$K=0.30+\frac{1.4\,Wh_G}{Hd} \qquad (55)$$

H.....The product multiplying the maximum working pressure by the area in outer circle of packing ring or of contact surface of the plate (kg.)

d.....Diameter as shown by Figure 27

W.....Total load on the bolt (kg.) Product multiplying the allowable stress by the minimum sectional area of all bolts.

hG.....Distance between the edge of diameter d and bolt circle as shown by Figure 27 e and f (mm.)

c.....corrosion allowance

Article 157. The effective area of the reinforcement shall be in accordance with Article 66. However, the corrosion allowance of shell plate shall not be taken as the effective area of the reinforcement.

Article 158. In this chapter, the following Articles shall be followed as the construction code, Articles from 3 to 10, 12, from 20 to 26, 28, 30, 32, 34, 38, from 48 to 57, from 62 to 65, from 67 to 84, from 86 to 100, from 109 to 112, from 117 to 127.

PART II. The Electric Are Welding Gode for Boilers and Special Boilers

Chapter I. General Rules

Article 159. The welding of boilers and special boilers (hereinafter called "boiler" simply) and their inspection are stipulated in this volume.

The regulations stipulated in Chapter 1 to Chapter 3 and in Article 204 may be applied to the accessories specified in Article 229 of Labor Safety and Sanitation Regulations.

Article 160. The technical terms used in this volume shall be defined as follows:

1. Steel materials mean carbon steel unless otherwise specified.
2. Base metal means the steel materials to be joined by welding. (Figure 42)
3. Beveling means the shaped end to be welded. (Figure 43)
4. Deposit iron means the molten iron applied to the beveled part. (Figure 42)
5. Reinforcement means the deposit iron on the principal welding surface over the level of base metal. (Figure 42)
6. Penetration means the fusion zone of the base metal melted and solidified together with the deposit iron. (Figure 42)
7. Welded line means longitudinal axis of welding. (Figure 42)
8. Under cut means the groove which is often found along the border line between the deposit iron and base metal. (Figure 42)
9. Grater means the sunken part which often appears at the end of welded line. (Figure 42)
10. Welded part means the zone of deposit iron including the part of base metal affected by the welding heat.
11. Double-sides-butt-welding means the welded joint with X, H, V and U shape bevelling with back welding. (Figure 43)
12. Single-side-butt-welding means the welded joint with V or U shape bevelling without supplementary back welding. (Figure 43)
13. Fillet welding means the welding shown in Figure 43.
14. Corner welding means the welding shown in Figure 43.
15. Thickness of throat means the minimum thickness of welded iron measured from the bottom of welded part. (Figure 43)
16. Seal welding means the auxiliary welding for the prevention of leakage.

Chapter II. Welding Process

Section 1. General Rules

Article 161. The butt welded joint of plates over 6 mm. in thickness shall be carried out with V, X, U or H shaped beveling.

The shape of beveling shall be in accordance with the following Table 8, but V shaped beveling is allowed instead of U shape to the welding of headers or similar parts.

Table 8

Kind of welding	Thickness of plate (mm.)	Beveling
Hand weld	6 to 16	V shape
	12 to 38	X or U shape
	19 and over	H shape
Automatic weld	6 and over	U shape

When welding process is applied to the gas cut edge without any preparatory work-up, the bevelling shall be prepared to be plane and shall be cleaned off the slags.

Article 162. When plates are lap-jointed by fillet welding to the full thickness along the two edges of plates, the width of lapped portion shall not be less than 4 times the plate thickness (at least 25 mm.) and the thickness of throat shall not be less than 5/8 of the welded edge.

Article 163. The thickness of throat in fillet welding for fixing the reinforcing plate shall not be less than that shown in Figure 44. (minimum 6 mm.)

Article 164. The welded part shall have good penetration and shall be free from any defects such as cracking, under cutting, over lapping, crater, slag, gas pocket, etc.

Article 165. In case the reinforcement weld is additionally applied to get good quality of welding, its unnecessary part shall be shaved off afterwards.

Article 166. When any shell or end plate for max. working pressure of 16 kg. per cm.^{2} or more is newly constructed by welding, the welding process shall done by horizontal method.

Article 167. The slipping between surface of the welding shall not be more than the following value:

1. In case of longitudinal welding, 5 % of plate thickness (maximum 1.5 mm., minimum 1 mm.)
2. In case of circumferential welding in boilers, 10% of plate thickness (minimum 1.5 mm., maximum 3 mm.)
3. In case of circumferential welding in special boilers, 20 % of plate thickness (minimum 1.5 mm., maximum 6 mm.)

Article 168. When two plates of shell or shell and end plate of different thickness is butt-welded, the enge of thicker plate shall be shaved down as shown in Figure 45.

Article 169. Both the welding and rivetting process shall not be applied to the same joint except the following cases:

1. Seal welding against leakage at any part other than the longitudinal or circumferential seam of shell
2. Seal welding against leakage related to the special boilers
3. Welding along the edge of longitudinal seam of shell

Section 2. Repair

Article 170. The flat part of flat end plate without stays shall not be repaired by welding.

Article 171. When the damage at the curvature of end plate without reinforcement is to be repaired by welding, the part shall be reinforced by some adequate means.

Article 172. When repairing is applied to the cracked part of the screw hole into which a tube is screwed, the part shall be renewed by pipe stand with strong flange or a seamless steel tube, larger than the screw hole plus 25 mm. and longer than twice the thickness of plate, shall be welded to the position, or shall be strengthen otherwise. (Figure 46)

Section 3. Stress Elimination

Article 173. The internal stress due to welding shall be eliminated by the annealing, etc.

Article 174. The annealing for the stress elimination shall be performed in furnaces, but in the following cases the partial stress elimination may be adopted:

1. Welded part 25 mm. or less in plate thickness
2. End plate
3. The part of shell fittings welded (except the part of shell, when the plate is cut and fitting is butt-welded to)

Article 175. The stress elimination in the furnace shall be in accordance with the following items:

1. It shall be heated uniformly from 600°C. to 650°C. for six. hours at least.
2. The temperature under the preceding item shall be kept for T/25 hours (T is the maximum thickness of welded part in mm.)
3. It shall be cooled gradually, but it shall be allowed to cool gradually outside of the furnace when the temperature cooled down to 250°C.
4. When the stress relieving is performed separately by halves of body, the portion subjected to either operation shall be 1500 mm. or more and the exposed part shall be protected from cooling so that the temperature's drop shall be less than 200°C. per 1000 mm. in length.
5. The annealing temperature shall be measured.

Article 176. When the stress is eliminated partially, the welded part shall be placed at center and shall be covered with a plate measuring in width greater than 12 times the plate thickness and shall be heated and cooled in accordance with the preceding Article, however, this cover plate may be omitted when the part to take off the stress does not come in direct contact with the combustion gas or when it is simple in construction.

Chapter III. Welded Joint

Section 1. General Rules

Article 177. Any hole in the welded part shall be reinforced, but this may be omitted when the part is deemed to be strengthened as in case of tube holes.

Article 178. Lap welding shall not be used except for the fitting of dome, pipe stand, reinforcing material, back plate or similar fittings. But it shall be applied for circumferential joint of shell plates 16 mm. or less in thickness.

Article 179. The one side butt welding shall be only allowed for the body less than 500 mm. in inside diameter or when it is impossible to perform double sides butt welding.

One side butt welding, which is perfectly penetrated by the application of back plate or by some such procedure, and whose back is shaved and welded supplementary thereon, shall be accounted as double sides butt welding.

Article 180. When flat end plate, cover, or bottom plate is welded to the shell, the fixing method shall be referred to Figure 47.

Article 181. The standard efficiency of weld joint shall be given by Table 9.

Table 9

Kind of Joint	Standard Efficiency of Joint (%)	Lemitation
Double Sides Butt Welding	80	None
Single Side Butt Welding with Back Plate	80	In case of Longitudinal Joint, 32 mm. or less in its Plate Thickness
Single Side Butt welding without Back Plate	70	Plate Thickness less than 16 mm.
Double Sides Full Thickness Fillet Lap Welding	65	Circumferential Joint and Plate Thickness less than 16 mm.
Single Side Full Thickness Fill Welding with Plug Welding	65	Circumferential Joint and Plate Thickness less than 16 mm.
Single Side Full Thickness Fillet Weld without Plug Welding	55	End Plate receiving Pressure on Convex Surface and Plate Thickness less than 16 mm.

Article 182. The joint factor shall comply with the following items corresponding to the kind of steel, X ray inspection, stress relieving and the skill of welder:

1. The factor for the kind of steel ahall comply with Table 10. when different kind of steel is welded, the lower value of the factor shall be adopted.

Table 10

Classification	Substance specified in Standard	Factor
A class	Rolled Steel Grade 1 for Boiler specified in J. E. S. 3103	1.00
B class	Rolled Steel Grade 2 or Grade 3 for Boiler specified in J. E. S. 3103	0.97
C class	Rolled Steel for General Structures Grade 1, 2 or 3 specified in J. E. S. 3101 Forged Steel Grade 2 specified in J. E. S. 3201 Cast Steel Grade 1, 2 or 3 specified J. E. S. 5101	0.92

2. Factor in accordance with X ray inspection (when all important welded joints are inspected)
   a. When inspection passed
      1st class, ...1.12, but on fillet welding, 1.00
      2nd class, ...1.06, but on fillet welding, 1.00
   b. When without inspection 1.00
3. Factor as to stress elimination
   a. When stress is eliminated 1.00
   b. When stress is not eliminiated 0.94
4. Factor as to boiler welder
   a. Special boiler welder 1.00
   b. Common boiler welder 0.95

Article 183. The efficiency of welding joint shall be taken as the product of the standard efficiency stipulated in Art. 181 and the joint factor stipulated in the preceding Article. (Table 11)

Table 11

Kind of Joint \ Factor of Joint	Boiler Welder Coef.	Stress Elimination Coef.		Classification of Steel Coef.	Efficiency of Joint: In case of X Ray Test, 1 class (1.12)	Efficiency of Joint: In case of X Ray Test, 2 class (1.06)	Efficiency of Joint: Without X Ray Test (1.00)
1. Double sides Butt Welding and Single Side Butt Welding with Back Plate	Special (1.00)	Performed (1.00)	A	1.00	89.6	84.9	80.0
			B	0.97	87.0	82.3	77.6
			C	0.92	82.5	78.0	73.6
		Not performed (0.94)	A	1.00	84.4	79.8	75.2
			B	0.97	81.8	77.4	73.0
			C	0.92	77.5	73.3	69.1
	Common (0.95)	Performed (1.00)	A	1.00	85.2	80.6	76.0
			B	0.97	82.5	78.2	73.6
			C	0.92	78.4	74.2	70.0
		Not performed (0.94)	A	1.00	80.1	75.8	71.5
			B	0.97	77.6	73.5	69.2
			C	0.92	73.6	69.7	65.8
2. Single Side Butt Welding without Back Plate	Special (1.00)	Performed (1.00)	A	1.00	78.5	74.2	70.0
			B	0.97	76.1	72.0	69.7
			C	0.92	72.2	68.3	64.4
		Not performed (0.94)	A	1.00	73.8	69.8	65.8
			B	0.97	71.6	67.7	63.9
			C	0.92	67.9	64.3	60.6
	Common (0.95)	Performed (1.00)	A	1.00	74.5	70.5	66.5
			B	0.97	72.3	68.5	64.6
			C	0.92	68.6	64.9	61.2
		Not performed (0.94)	A	1.00	70.1	66.3	62.5
			B	0.97	67.9	64.3	60.6
			C	0.92	64.5	61.0	57.5
3. Double Sides Full Thickness Fillet Welding and Single Side Full Thickness Fillet Lap Welding with Plug Weld	Special (1.00)	Performed (1.00)	A	1.00		65.0	
			B	0.97		63.1	
			C	0.92		59.8	
		Not performed (0.94)	A	1.00		61.1	
			B	0.97		59.3	
			C	0.92		56.2	
	Common (0.95)	Performed (1.00)	A	1.00		61.8	
			B	0.97		59.9	
			C	0.92		56.9	
		Not performed (0.94)	A	1.00		58.0	
			B	0.97		56.3	
			C	0.92		53.4	
4. Single Side Full Thickness Fillet Lap Welding without Plug Weld	Special (1.00)	Performed (1.00)	A	1.00		55.0	
			B	0.97		53.3	
			C	0.92		50.6	
		Not performed (0.94)	A	1.00		51.7	
			B	0.97		56.2	
			C	0.92		47.6	
	Common (0.95)	Performed (1.00)	A	1.00		52.2	
			B	0.97		50.6	
			C	0.92		48.1	
		Not performed (0.94)	A	1.00		49.1	
			B	0.97		47.6	
			C	0.92		45.1	

Article 184. Plug welding is permissible, when single side fillet welding is done to the edge of special boiler shell plate 16 mm. or less in thickness after inserting the end plate so as to receive the pressure on the convex side or when the reinforcement is fixed around the hole. (Figure 48)

Article 185. The load supported by the plugs welding shall be less than 20% of the total load.

The diameter of the plug shall be greater than 6 mm. plus to the plate thickness (minimum thickness 25 mm., maximum 56 mm.).

Article 186. The allowable stress for plug welding in case of shearing or tensile stress shall be calculated by the following formula:

$$L=(0.8\,d-5)^2 fz \qquad (56)$$

Where

L.....Allowable shearing stress or tensile stress for one plug welding (kg.)

d.....Bottom diameter of plug hole (mm.)

f_z.....Allowable stress calculated by Figure 1 according to its temparature when shearing or tensile stress act on the plug welding (kg. per mm.^{2})

Article 187. The part not subjected to the pressure may be intermittently welded to the shell.

The strength of shell in the welded part, where the stress is not eliminated after the intermittent welding, shall be considered to correspond to the strength of same shell with the following holes:

1. Diameter equal to the maximum length of welded part plus 12 mm.;
2. Diameter equal to twice the length of welded part when the shell plate contains more than 0.35% of carbon as in the case of seamless forged steel shell.

One length of the welded part specified in the preceding paragraph shall not exceed 75 mm. in item 1 and shalf not exceed 25 mm. in item 2.

Article 188. The efficiency of intermittent welded part, its value being computed by the method of paragraph 2 of the preceding Article, shall not be less than the efficiency of longitudinal joint of the shell.

Article 189. When the ring of shaped steel is welded on the outside of shell for the purpose of reinforcing against external pressure, the intermittent welding may be allowed.

The unwelded portion in the preceding paragraph shall be less than 8 times the thickness of shell plate, and the total length of the welded portion shall be greater than 1/2 the outside circumference of the shell.

Article 190. When two shells are welded circumferentially each other, the longitudinal welded joint of either shell shall be separated with a distance more than 5 times the thickness of thicker plate.

Article 191. When the pipe stand, etc. is welded on the rivetted shell, the welded part shall be kept away from the rivetted part with a distance greater than 4 times the thickness of plate plus the diameter of hole. But this shall not be applied, when rivetting is done after welding.

Section 2. Welding on Holes and Flanges

Article 192. The distance between the edge of welded part of dome, pipe stand, etc. on the shell and the edge of circumferencial joint shall be greater than twice the thickness of shell plate (maximum 100 mm.).

Article 193. The thickness of throat in the fillet welding shall be 6 mm. or more and shall not be less than the value specified in Figure 44.

The strength of fillet welding relative to its thickness shall be calculated by the multiplication of the stress specified in one of the following items and the joint efficiency or the sectional area of throat thickness:

1. For edge fillet welding, take the shearing stress calculated referring to Figure 1 (Figure 49 a)
2. For side fillet welding, take 75 % of the shearing stress calculated by the preceding item (Figure 49 b)
3. For combined use of edge fillet and side fillet welding as in case of welding around a hole, take 87.5 % of the shearing stress calculated by item 1.

Article 194. When the dome is welded on the shell, the flange shall be butt welded or shall be double sides full thickness fillet welding and the pipe stand shall be reinforced for the hole.

Article 195. When the pipe stand or the reinforcing ring is welded on the shell or the end plate, the single side fillet lap welding shall not be used.

The steel tube or the pipe stand having inside diameter less than 50 mm. may be welded to the shell or the end plate without reinforcement as shown in figure 50, but the thickness of steel tube or pipe stand shall be thick enough to with-stand the pressure greater than 60 kg. per cm.^{2}.

Article 196. When the flange ring is welded to the shell, the dome or pipe stand, the welding shall be

done as shown in Figure 51 a, and the fillet between the back of flange and the part of shell or pipe stand shall have a radius greater than 1/4 thickness (minimum 6 mm.) of the shell, dome or pipe stand.

Article 197. When the flange with boss is fixed to the shell, dome or pipe stand by butt welding the following items shall be complied with (Figure 51 b):

1. The distance between the back of flange and the center of welded part shall be greater than 3 times the thickness of shell, dome or pipe stand (minimum 25 mm.) when the thickness of the latter is less than 25 mm., and shall be greater than 75 mm. when its thickness is 25 mm. or more.
2. The end of boss shall be constructed equal to the thickness and external diameter of the shell, dome or pipe stand to which it is welded.
3. The external surface of boss shall be in parallel with the internal surface of the shell, dome or pipe stand or be kept within 6° inclination within the distance specified in the preceding item.

Article 198. The welding of reinforcement for the opening on shell shall be calculated by the following formula: (Figure 29)

$$A=(d+2c)(t-c)\eta \qquad (57)$$

Where

A.....Sectional area of reinforcement (mm.^{2})

d.....Diameter of opening measured in the surface including the shell axis and the center of opening mm.)

t.....Calculated thickness of shell or end plate (mm.):
For the thickness of dished end plate, it shall be calculated substituting factor W by 1 in the formula of dished end plate.

η.....When the opening is in the part which joints do not exist η is the efficiency of the longitudinal joint.
When a part of the opening is on the jointing part, is 1.0.

c.....Corrosion allowance, 1 mm. for boiler, from 1 mm. to 7 mm. for special boiler newly manufactured

Section 3. Others

Article 199. The minimum thickness or the max. working pressure of flat cover plate or the bottom plate welded all around shall be calculated by the following formula:

$$t=d\sqrt{\frac{K.\,P}{100fz}}+c \qquad P=\frac{100fz(t-c)^2}{K.\,d^2} \qquad (58)$$

Where

t.....Minimum thickness of flat cover plate or bottom plate (mm.)

d.....Diameter measured as shown in Figure 27 (mm.)

p.....Max. working pressure (kg. per cm.^{2})

fz.....Allowable stress obtained referring to Figure 1. (kg. per mm.^{2})

c.....Corrosion allowance (mm.); 1 mm. for boiler, from 1 to 7 mm. for special boiler newly manufactured.

k.....Constant

(a) k=0.25, when the bottom plate is butt welded to the shell or pipe as shown in Figure 27 g. and the inside corner radius is not less than 3 times the thickness of adjacent flange

(b) k=0.30, when the cover plate or bottom plate is lap welded as shown in figure 27 d and the inside radius of curveture is not less than 3 times the thickness of adjacent flange

(c) k=0.50, when the cover plate or bottom plate is welded to the inside of shell as shown in Figure 27 h with its full thickness and also when the thickness of throat of fillet welding is not less than 1.25 times the least thickness of either shell or cover plate

(d) k=0.50, when the cover plate or bottom plate is inserted as shown in Figure 27 i, into the shell, inside diameter d of which is less than 450 mm. and is welded with its edge bended to 30°—45° and also when the thickness of throat is greater than the thickness of either the shell or end plate

The bending of edge of shell may be done at the normal temparature paying attention leaving no defect to the material.

Article 200. Where any stay is welded parallel to the welded part of boiler, both edges of weld shall be separated apart by the distance greater than twice the thickness (minimum 25 mm.) of welded part of boiler.

Chapter IV. Inspection of Welded Part

Section 1. General Rules

Article 201. The boiler manufactured by welding shall pass the inspection stipulated in this Chapter about the welding practice in the course of boiler manufacturing.

Article 202. The name of boiler welder shall be clearly recorded with regard to the part which he performed welding.

The test results of the welded part of boiler shall be accurately recorded and kept.

Section 2. Mechanical Test

Article 203. The welded part shall pass the mechanical test stipulated in this Section.

Article 204. The mechanical test of welded part shall include tensile test, bending test, fracture test, specific gravity test, tensile test and impact test of deposit metal. However, whole or part of tests may be omitted when welding is performed as repair work to the boiler under 16 kg. per cm^2. in maximum working pressure and the total length of welded part being less than 1,000 mm., or with regard to the accessories specified in Article 229 of the Labor Safety and Sanitation Regulations.

Article 205. The test plate for tension, bending or fracture test of the welded part shall be made as follows:

1. As to the circumferencial and longitudinal joint of shell with internal pressure, one test plate for each welded joint shall be made of the same material and same thickness as the welded parts, but the test sheet for circumferencial joint may be omitted, when the same boiler welder performes welding at the same time or continuously by the same method as the longitudinal joint.
2. When the same boiler welder performs welding, to the plate of the same kind of material with the thickness less than 9 mm., at the same time or continuously by the same method, one test plate shall be prepared for every 60 m. of the total length of circumferencial and longitudinal welded joint.
3. As to the main welding joints other than two items prescribed above and when the same boiler welder performs welding, the plate of the same kind of material with thickness difference being less than 6 mm., at the same time or continuously by the same method, one test sheet shall be prepared for each range limit defined below:
   a. When plate thickness is from 12 mm. to 25 mm., one for every 60 meter of welded length
   b. When plate thickness is below 12 mm., one for every 90 meter of welded length

Article 206. The test plate shall be welded similarly and continuously as the joint welding.

For the longitudinal joint, the test plate with stiffener shall be temporarily welded as shown in Figure 52 to the shell plate laying the welding lines straight forward, and for circumferencial joint test plate prepared for the purpose shall be welded immediately after the circumferencial weld ended.

Article 207. The stress of test plate shall be eliminated at the same condition with the welded part.

The strained test plate shall be corrected before the elimination of stress, but in this case it shall not be over heated surpassing the definite temperature required for the stress elimination.

Article 208. The size of test plate shall be large enough to take test pieces without 50 mm. of the welded end as described in Articles 210, 212-1, 213-1, 214 and 217.

Article 209. Number of tests to be performed shall be as follows relative to the kind of joint shown in table 12. However, the tension test of deposit iron shall be carried out only when it is necessary to verify the reliability of weld:

Table 12

Kind of Joint	Lap weld Tension Test	Tension Test	Bending Test	Fracture Test	Deposit Metal Test		Impact Test
					Tension Test	Specific Gravity Test	
Double Sides Butt Welding		1	1	1	1	1	1
Single Side Butt Welding with Back Plate		1	1	1	1	1	1
Single Side Butt Welding without Back Plate		1	1	1	1	1	1
Full Thickness Fillet Lap Welding	2			2			

Article 210. The size and shape of tension test piece shall correspond to the standard stipulated by J.E.S. No. 1 and the welded portion shall be positioned at the center.

When the thickness of test piece is greater than the capacity of the testing machine, it may be sawed with thin saw to required thickness, but in this case all the pieces shall be needed to pass the test:

When welded part of test piece is cut by gas, it shall be removed at least 5 mm. from the cut edge.

Article 211. The tensile strength of test piece shall be greater than the product of 1.3 times the joint efficiency defined in Article 182 and the minimum value of tensile strength of base plate welded, but it need not to exceed the minimum value specified in the regulation.

Article 212. The size and the shape of bending test piece shall be as shown in Figure 53.

The bending test shall be carried out, placing the welded central line at the center with the wider side of welded surface to the outside and then bending it gradually as shown in Figure 53 until there appears a maximum fissure of 15 mm. width. (except crack along the edge)

In the bending test, the amount of elongation deducting the width of fissures shall not be less than 20 % in case of nontreatment for stress elimination, but 30 % in case of stress elimination treatment.

Article 213. The shape and size of test piece for the fracture test shall be in accordance with the Figure 54.

The harmful bubbles, slags and cracks etc. shall not exist in the fractured surfaces of the fracture test piece and the tensile test piece.

Article 214. The shape and size of tensile test piece of deposit iron shall be taken as shown in the Figures 55 and 56 so that the paralell part of the test piece shall be completed of deposit iron.

The dimension of the above test piece shall be in accordance with the stipulation in J. E. S. No. 1 or 4 test piece.

The test piece for specific gravity of the deposit iron shall be taken from the deposit iron at the welded joint, the length being 50 mm., and the diameter being as large as possible. (maximum 15 mm.)

Article 215. The tensile strength of deposit iron shall not be less than the minimum value for the base metal and the elongation shall be over 26% when the stress is eliminated 20% without the stress elimination.

Article 216. The value of specific gravity of the deposit iron shall be over 7.80 measured by under water measuring method. (J.E.S. No. 9003)

Article 217. The shape and size of impact test piece shall be in accordance with No. 1 test piece of J.E.S. No. 239 (Izod System) or No. 3 test piece in the same code (Charpy System) and the cutting point shall be put at the center of width of deposit iron.

Article 218. The impact test shall be carried out with 2 pieces each under normal temperature 15°C. or over and the mean value shall not be less than the following:

1. By Izod testing machine, 4 kg. m.
2. By Charpy testing machine 6 kg. per cm.^{2}

Article 219. In case the test is not successful and the test result is not less than 90% the minimum value in the standard (7.75 in the specific gravity test), another test may be done as to the test plate made by the same boiler welder.

In this case, however, the test pieces shall be needed twice the number for the primary testing and all the test pieces must pass the standard.

Section 3. X Ray Test

Article 220. The X ray test shall be made to the total length of butt welded joint of shell (including the joint of dome) which comes under following items. But a part of this test may be permitted to omit:

1. When the thickness of plate exceeds 20 mm.
2. When the steam pressure exceeds 16 kg. per cm.^{2}
3. When the steam temperature exceeds 300°C.
4. When special steel or steel of which tensile strength exceeds 50 kg. per mm.^{2} is employed.

Article 221. The X ray test shall be carried out in accordance with the rule of J.E.S. No. 9002.

Article 222. The result of X ray test shall conform to the following items:

1. The part subjected to the steam pressure over 25 kg. per cm.^{2} or the steam temperature exceeding 350°C. shall accord to the 1st class in Table 13.
2. The part specified in Article 220, but other than prescribed abave shall accord to 2nd class in Table 13.

Table 13

Grade	Defect or Not	Minimum Distance Between the Defects (mm.)	No. of Defects (per cm.^{2})
1st Class	No Defect Recognizable		
2nd Class	Defect Recognizable	Above 4	Under 4

Allowable maximum size of defect in this Table shall be referred to Table 14.

Table 14. Size of Allowable Maximum Defect

Thickness of Base Metal	a	$\frac{a+b}{2}$
Above 30 mm.	Under 4 mm.	Under 3 mm.
Under 30 mm.	Under 13% of the thickness of Base Metal	Under 10% of the thickness of Base Metal

Article 223. When any welding defects such as bubbles, slags cracks or insufficieny penetrations are discovered by the X ray photograph, examination may be repeated once more after shaving off the defect and welding there on according to the condition.

When defect in the welded part is discovered by the X ray examination, further photograph is requested with regard to the part apointed and if defect is discovered again thorough examination shall be carried out for all the parts suspected of defect.

The remedy of defect shall be carried out in accordance with paragraph 1.