

ISHIKAWAJIMA-HARIMA

CRANES

Ishikawajima-Harima Heavy Industries Co., Ltd.

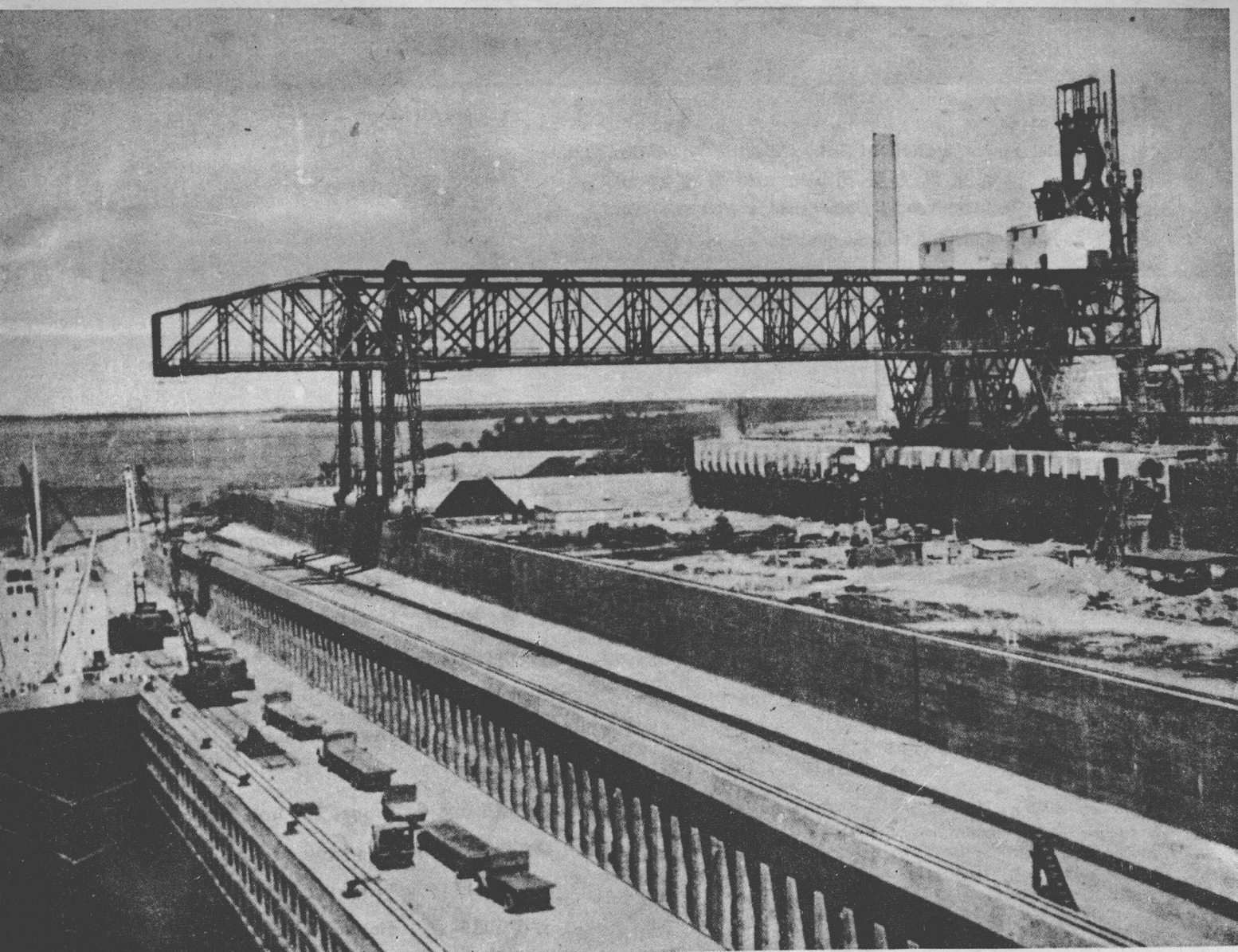
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Ishikawajima-Harima

CRANES



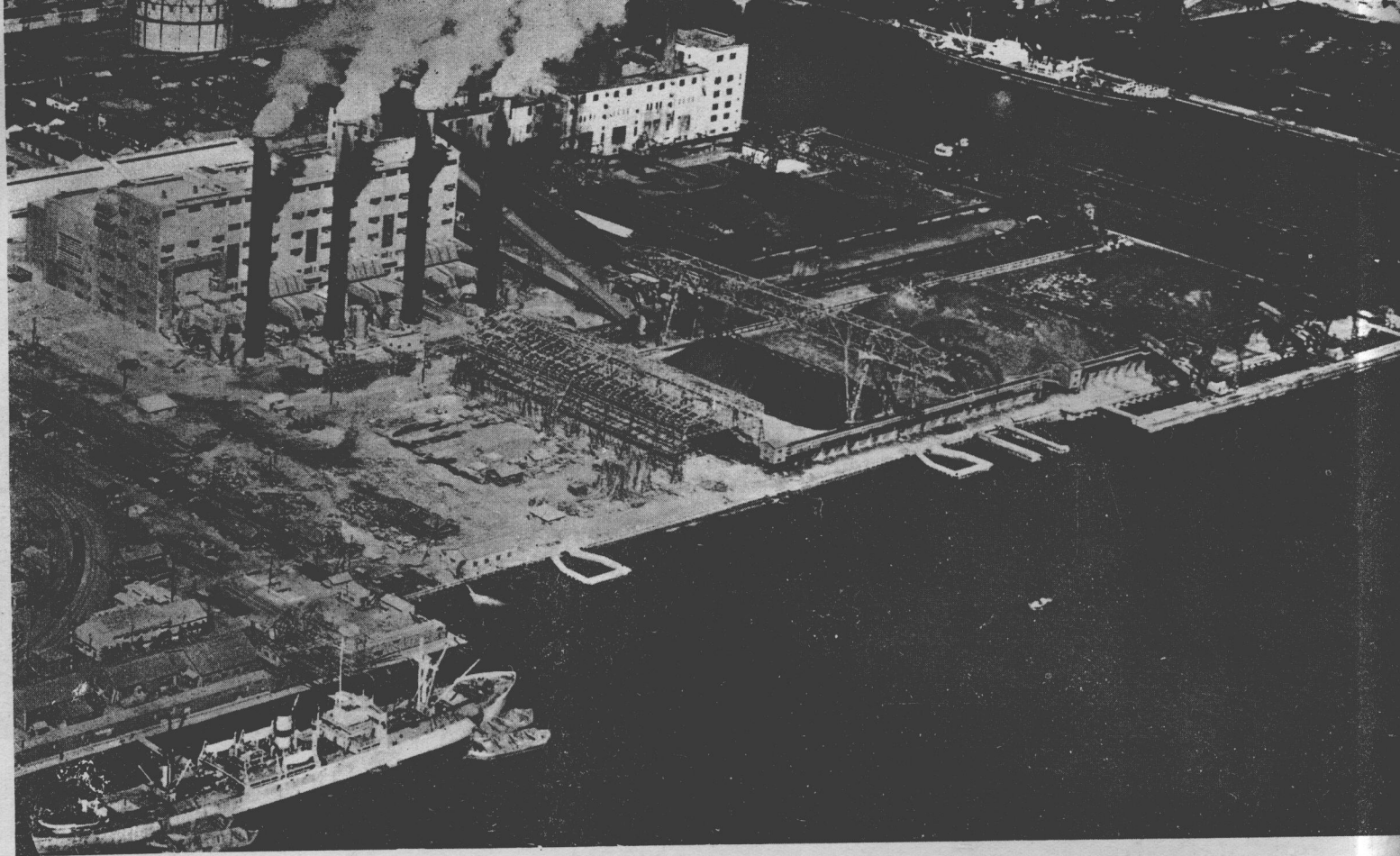
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Ishikawajima-Harima Heavy Industries Co., Ltd.

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Tsurumi Power Station of Tokyo Electric Power Co., Ltd.

東京電力公司 Tsurumi 發電站

All the coal-handling equipment of this coal yard
were made by Iishikawajima-Harima in 1953

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PREFACE

The Ishikawajima-Harima Heavy Industries Co., Ltd. known throughout the industrial field of Japan as the pioneer crane manufacturer, is still holding the distinct position of the foremost leader in the field.

And even among the world crane manufactures, Ishikawajima-Harima is favoured as being one of the first class. Before World War II, all types of cranes in very large quantities were exported to Manchuria and North China. Various types of floating cranes were also sold to U.S.S.R. After the war, besides meeting huge domestic demand for various cranes, Ishikawajima-Harima exported three sets of Level Luffing Cranes to Brazil and also supplied a 50-ton Floating Crane of efficient quality to the U.S. Army. In 1956, two sets of 800 t/h Ore Bridge Cranes with 12-ton Grab Bucket were delivered to Sociedad Mixta Siderurgia Argentina. Furthermore, a 10-ton Electric Overhead Travelling Crane was delivered to Burma, a 75-ton Gantry Crane to Formosa, a 35-ton Wrecking Crane to Thailand, a 40-ton Electric Overhead Travelling Crane to India and three sets of 20-ton Level Luffing Cranes to the the Argentine Navy.

In 1958, 8 sets of Heavy Duty Mill Type Cranes and 57 sets of Electric Overhead Travelling Cranes were manufactured for Sociedad Mixta Siderurgia Argentina. The representing cranes of the above are 2 sets of 350-ton Ladle Cranes, a 400-ton Ingot Stripper Crane, 2 sets of 10-ton Charging Cranes and 2 sets of 15-ton Soaking Pit Cranes.

In 1961, 25 sets of 3-ton Level Luffing Wharf Cranes were manufactured for the Commissioners for the Port of Calcutta of India, a 50-ton Level Luffing Floating Crane for Indonesia.

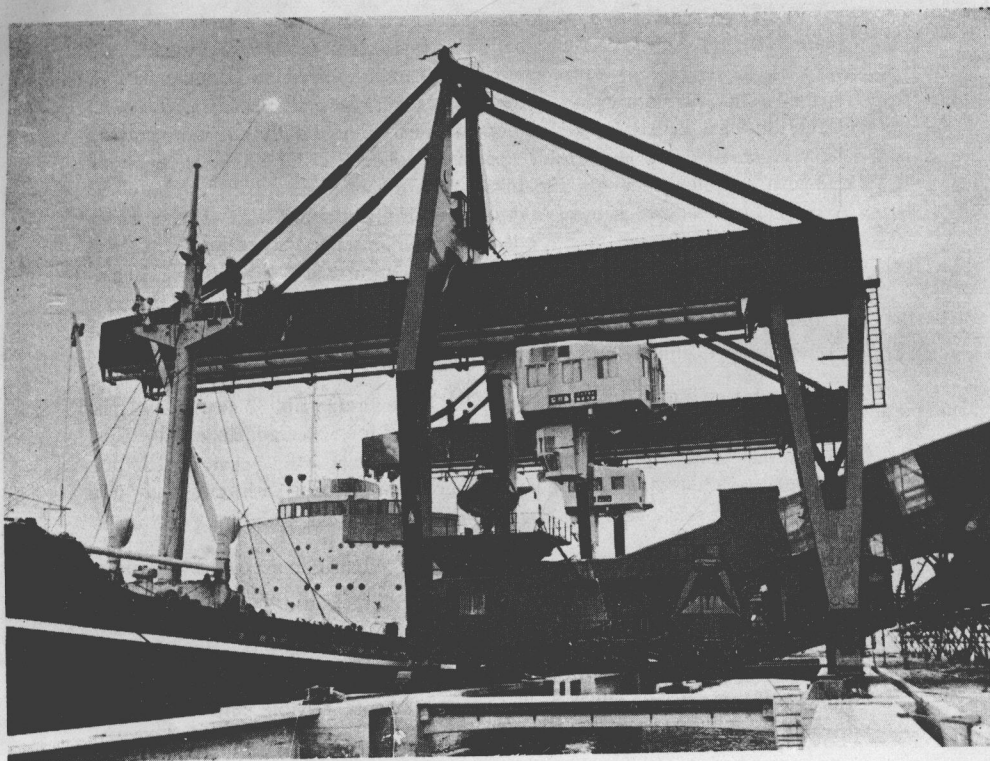
Ishikawajima-Harima has been manufacturing cranes for the past sixty years and it is with absolute confidence that Ishikawajima-Harima offers to the buyers products which will prove efficient, reliable and economical through years of service.

IMPORTANT CRANCS MANUFACTURED BY ISHIKAWAJIMA-HARIMA

- 1191—30-ton Overhead Crane
- 1916—80-ton Hammer-head Type Wharf Crane
- 1921—200-ton Overhead Crane
- 1928—7-ton Level Luffing Wharf Crane
- 1930—10-ton Ore Grab Bridge Transporter
- 1933—Rope Trolley Type Bridge Transporter with 5-ton Coal Grab (Span 100 m)
- 1933—100-ton 4-Girder Ladle Crane
- 1934—350-ton Revolving Hammerhead Type Wharf Crane
- 1935—Coal Handling Floating Crane with 3-ton Coal Grab Level Luffing Crane and 100 t/h Transloader
- 1936—9-ton Cable Crane With 3 m³ Concrete Bucket (Span 930 m)
- 1938—2 sets of 400-ton Overhead Crane, capable of hoisting 800-ton load when used in parallel
- 1941—150 m³/h Bucket Excavator
- 1941—350-ton Self-Propelling Floating Crane with 80-ton Auxiliary Hoisting
- 1947—1,000 HP Koepe Type Hoist for Coal Mine
- 1954—50-ton Level Luffing Crane for shipyard
- 1955—800 t/h Ore Bridge Crane with 12-ton Grab Bucket
- 1956—80-ton Level Luffing Crane for shipyard
- 1959—350-ton Ladle Crane
- 1960—400 t/h Coal Unloader
- 1961—500 t/h Ore Unloader, 1,000 t/h Ore and Coal Unloader

The cranes listed above are record-breaking products at the time. The number of cranes manufactured by Ishikawajima-Harima to date has now overed 7,000 sets. After World War II, as partly shown in the catalogue, Ishikawajima-Harima cranes have been used in such fields as the iron and steel works, shipyards, loading and unloading installation, power plants and etc.

UNLOADERS 卸貨機



帶有旋轉小車的 每小時 400 噸卸煤機

Fig. 1

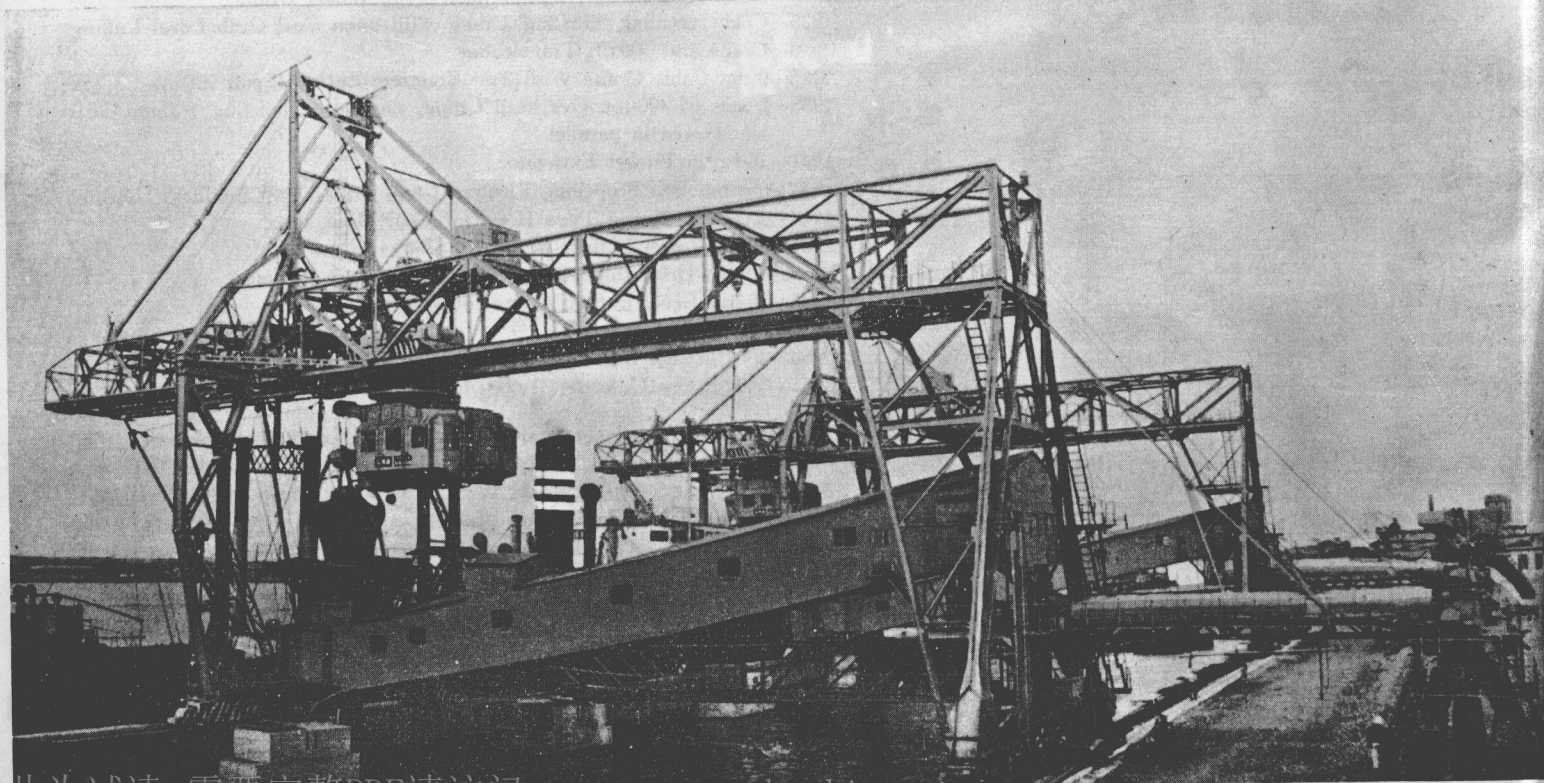
400 t/h Coal Unloader
with Slewing Man-trolley
for Tokyo Electric Power Co., Ltd.

Span :	17.0 m
Radius: Sea side	16.0 m
Trolley	4.1 m
Height of Girder :	16.5 m
Lift :	24.5 m
Speed : Hoisting	120 m/mn
Slewing	3 r/mn
Traversing	130 m/mn
Travelling	20 m/mn
Grab capacity	5-ton

1

Fig. 2 每小時 300 噸旋轉小車式卸煤機
300 t/h Coal Unloader with Slewing Man-trolley
for Tokyo Gas Co., Ltd.

Span :	31.5 m	Speed : Hoisting	100 m/mn
Radius: Sea side	21.5 m	Slewing	3 r/mn
Trolley	4.5 m	Traversing	100 m/mn
Height :	30.2 m	Travelling	40 m/mn
Lift :	16.0 m	Grab capacity :	4.5-ton



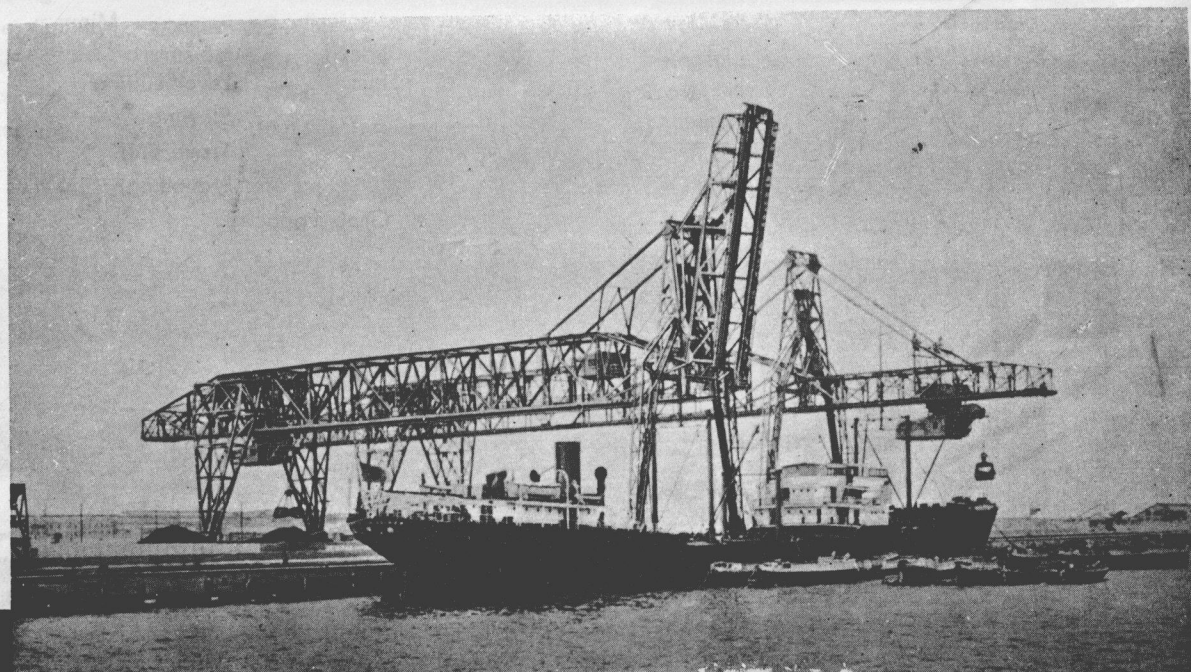
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Fig. 3 帶有旋轉小車的每小時 1000 噸鐵礦與煤卸料機
1,000 t/h Ore and Coal Unloader with Turn-Table Man-trolley
for Fuji Iron & Steel Co., Ltd.

Span :	30.0 m	Speed : Hoisting	100 m/mn
Radius : Sea side	27.0 m	Slewing	3 r/mn
		Traversing	160 m/mn
Height :	46.5 m	Travelling	25 m/mn
Lift :	29.5 m	Grab capacity : Ore 15-ton, Coal 16-ton	



4

橋式裝卸機，每小時 250 噸，抓斗容量 5 噸
Fig. 4 250 t/h Transporter with 5-ton Grab Bucket for Toyo Wharf, Co., Ltd.

Span :	81.15 m	Speed : Hoisting	100 m/mn
Wheel base :	22.6 m	Slewing	2.5 r/mn
Height :	10.0 m	Traversing	200 m/mn
Lift :	21.0 m	Travelling	25 m/mn
Radius : Sea side	26.0 m	Grab capacity :	5-ton
Land side	20.0 m		

3

BRIDGE TRANSPORTERS

橋式運載機

Photograph in Fig. 5, 6 and 7 in next page show a series of equipment at Toyosu Coal-handling Yard of Tokyo Metropolitan Office in port Tokyo.

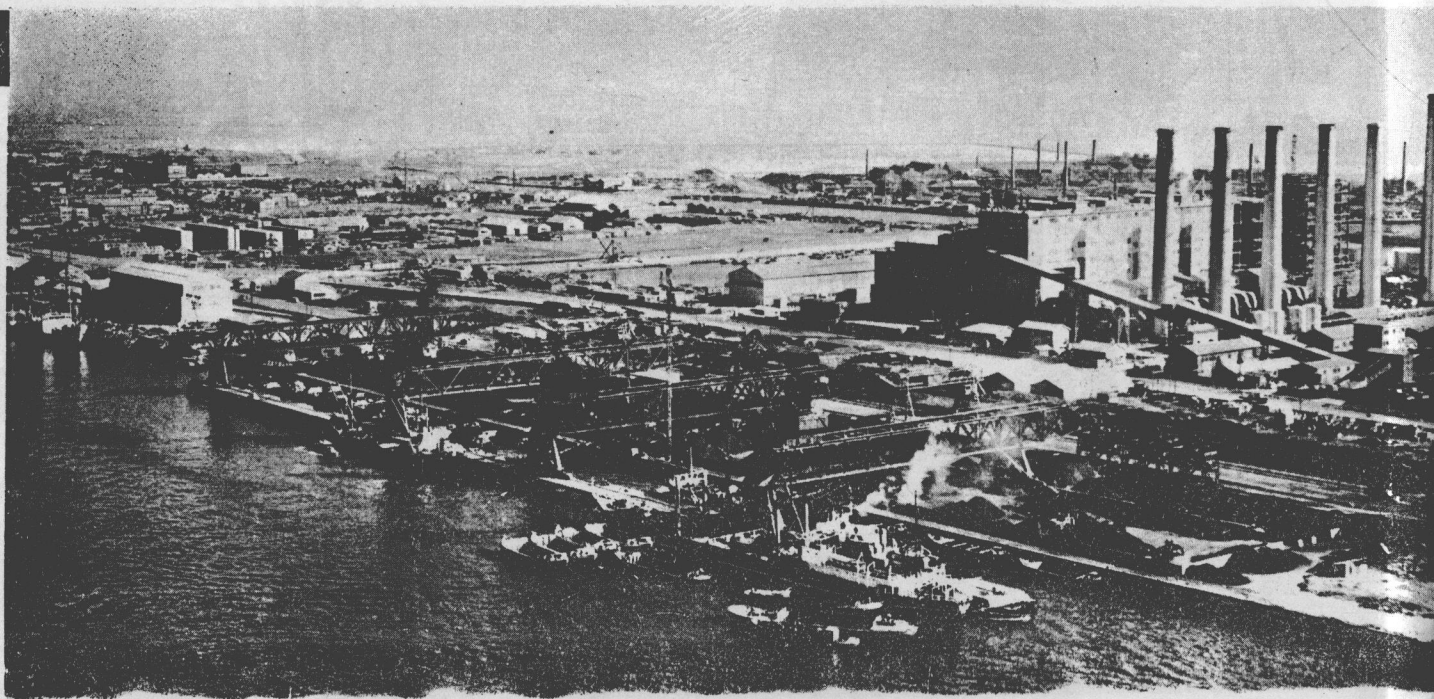
They are all manufactured by Ishikawajima-Harima and will be increased as the Plan of Port Tokyo proceeds.



Fig. 5 每小時 150 噸運載橋，備有水平度幅起重機，抓斗容量 2.5 噸
150 t/h Bridge Transporter with Level Luffing
Crane having 2.5-ton Grab Bucket

Span :		70.0 m
Gauge :		5.5 m
Wheel base :	Sea side	10.0 m
	Land side	9.0 m
Lift :		30.0 m
Radius :	Max.	20.0 m
	Min.	6.0 m
Speed :	Hoisting	60 m/mn
	Level Luffing	71 m/mn
	Slewing	1.5 r/mn
	Traversing	60 m/mn
	Travelling	20 m/mn
Grab capacity :		2.5-ton

6



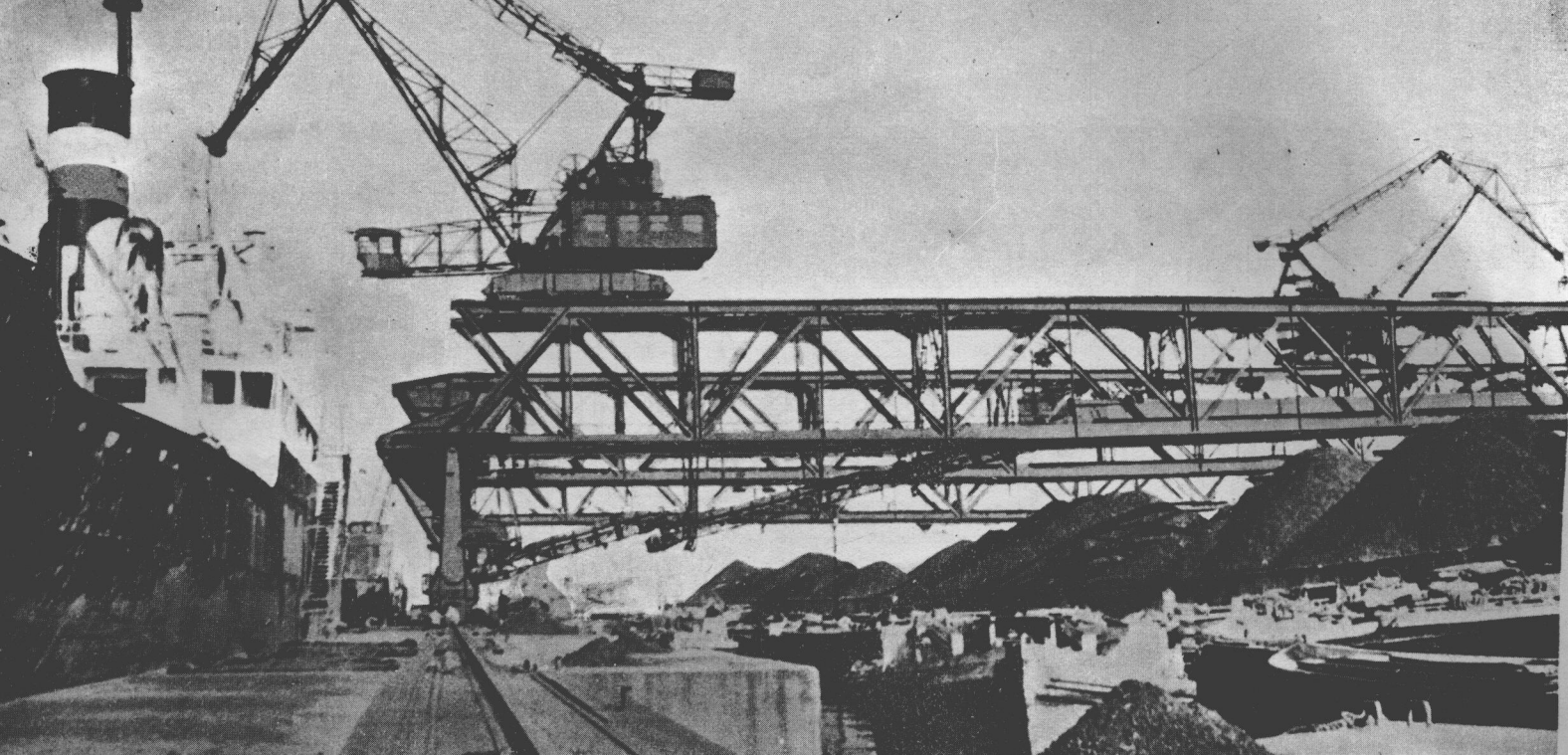


Fig. 6 每小時 300 噸的運載橋，有水平
變幅起重機，抓斗容量為 5 噸

300 t/h Bridge Transporter with Level Luffing
Crane having 5-ton Grab Bucket

Span :		70.0 m
Gauge :		5.5 m
Wheel base :		11.0 m
Lift :		30.0 m
Radius :	Max.	25.0 m
	Min.	8.0 m
Speed :	Hoisting	60 m/mn
	Level Luffing	60 m/mn
	Slewing	1.2 r/mn
	Traversing	40 m/mn
	Travelling	20 m/mn
Grab capacity :		5-ton

Fig. 7 每小時 270 噸的運載橋，備有水平
變幅起重機，抓斗容量為 3.5 噸

270 t/h Bridge Transporter with Level Luffing
Crane having 3.5-ton Grab Bucket

Span :		70.0 m
Gauge :		5.5 m
Wheel base :		11.0 m
Lif :		30.0 m
Radius :	Max.	25.0 m
	Min.	8.0 m
Speed :	Hoisting	90 m/mn
	Level Luffing	100 m/mn
	Slewing	1.2 r/mn
	Traversing	60 m/mn
	Travelling	20 m/mn
Grab capacity :		3.5-ton

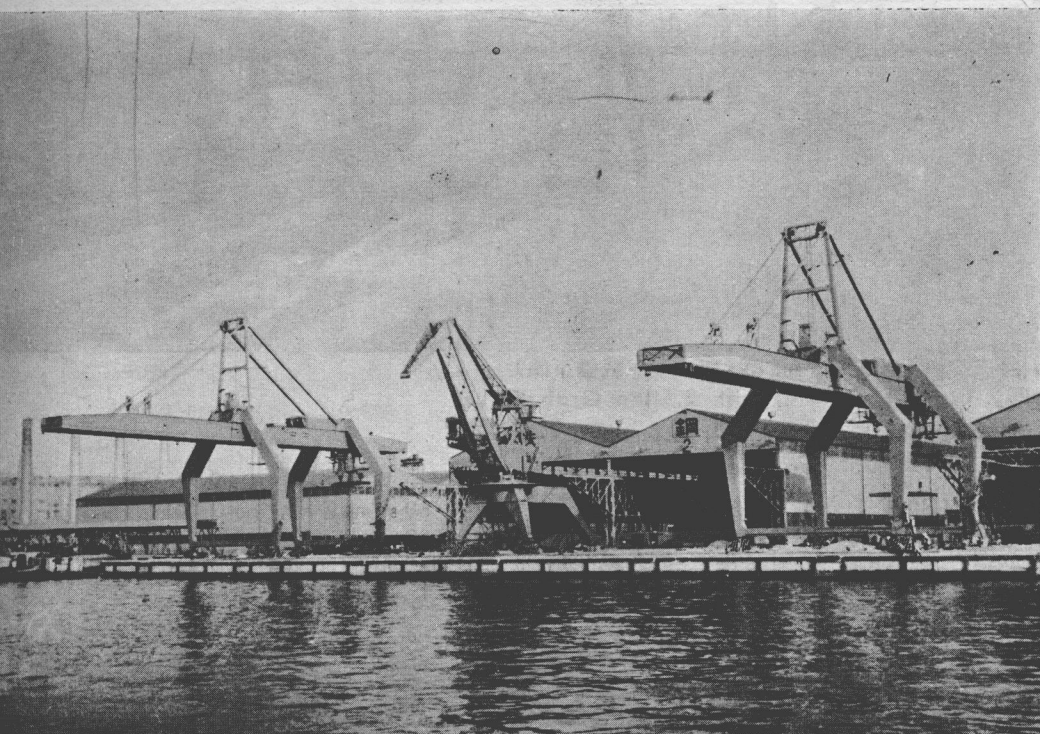


Fig. 8 三座運載橋
3 sets of Bridge Transporters
for Tokyo Tekko Futo K.K.

(From left to right)
20/10-ton Rope-trolley type,
10-ton Level Luffing type, and
10-ton Rope-trolley type Bridge
Transporters.

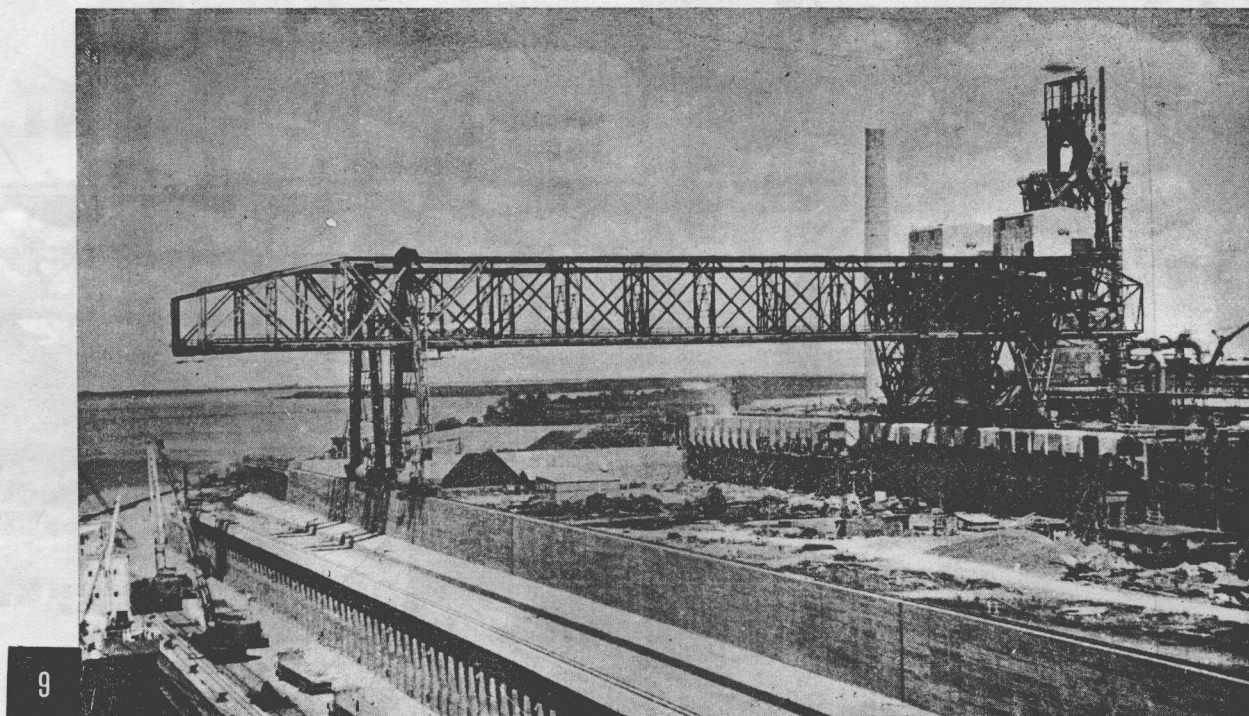


Fig. 9 每小時 800 噸的運載橋，抓斗容量 12 噸
800 t/h Ore Bridge Cranes with 12-ton Grab Bucket
(Same as the photograph on the cover)
for Sociedad Mixta Siderurgia Argentina

Type :	Man-trolley type	Speed :	Hoisting	90 m/mn
Capacity :	800 t/h		Closing	90 m/mn
Height :	38.7 m		Lowering	90 m/mn
Lift :	23.0 m		Traversing	260 m/mn
Grab capacity :	12-ton		Travelling	24 m/mn

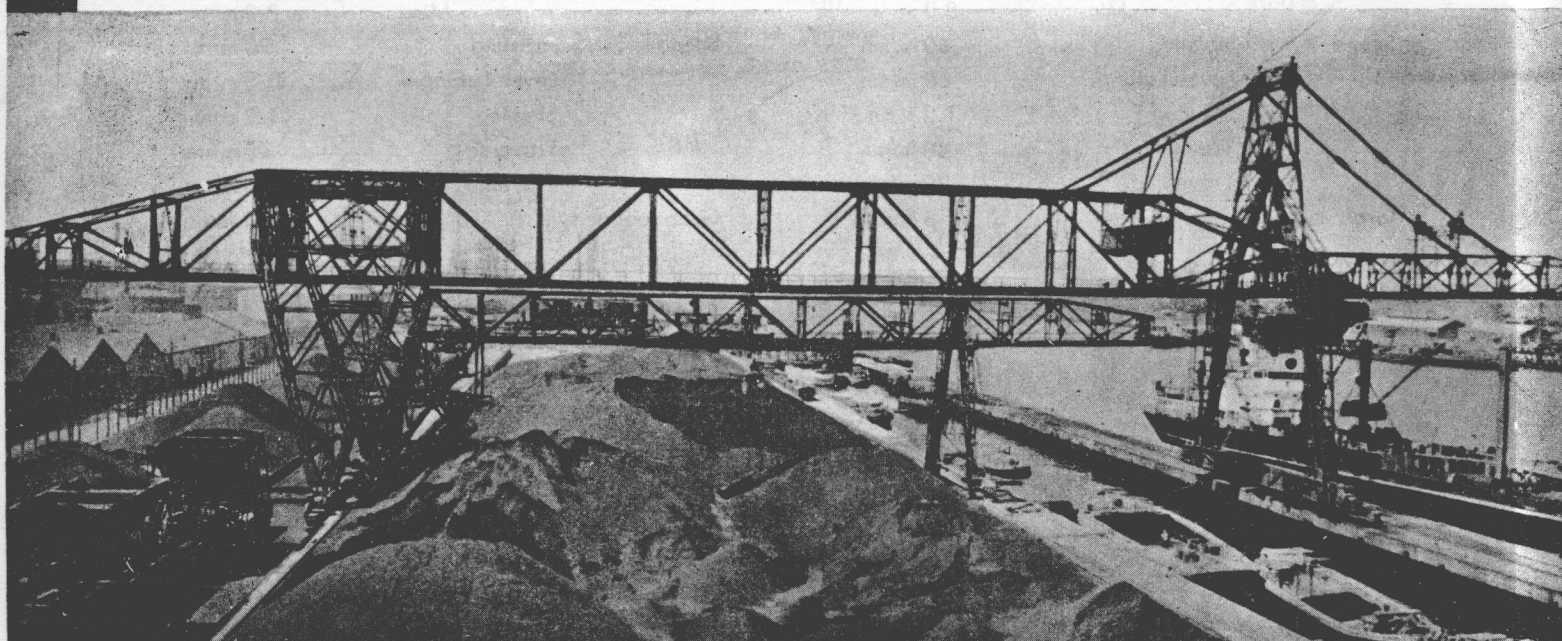


Fig. 10 鋼繩牽引式運載橋，抓斗容量 2.5 噸（在大型運載橋下面）
Rope-trolley Type Transporter with 2.5-ton Grab Bucket
(Under-neath the large transporter)
for Toyo Wharf Co., Ltd.

Span :	47.0 m	Speed :	Hoisting	60 m/mn
Lift :	16.0 m		Traversing	150 m/mn
			Travelling	20 m/mn

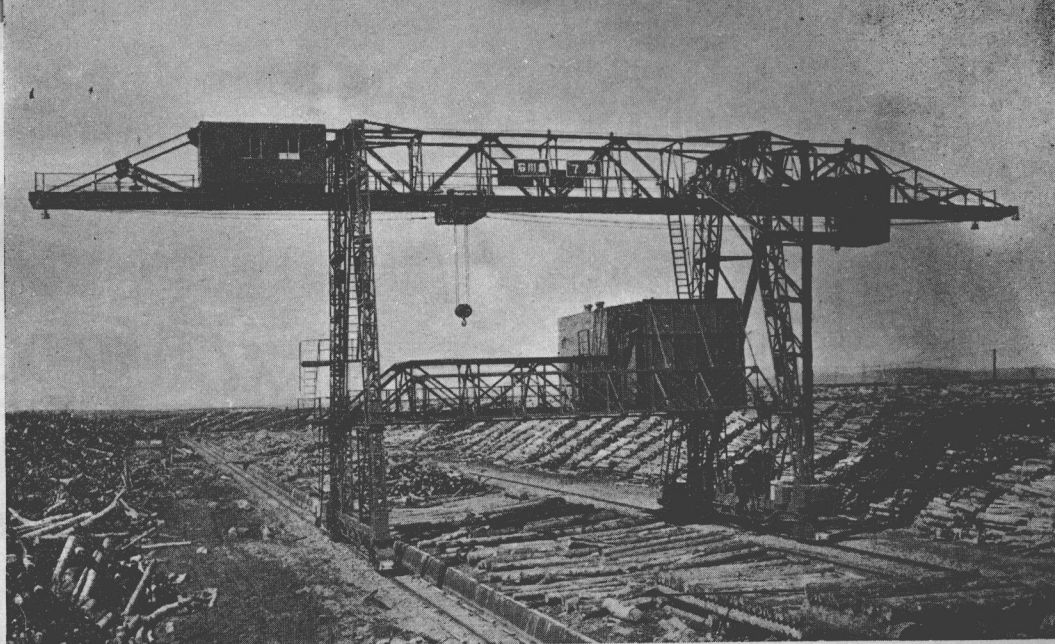
裝卸木料用運載橋機，
備有容量計數器

Fig. 11

**Timber Handling Bridge
Transporter with
Volume Checking Camera
(Rope-trolley Type)**

for Honshu Paper Mfg.
Co., Ltd.

Hook load: 7-ton
Span: 15.0 m
Traversing rang: 32.5 m
Lift: 10.0 m



12

裝卸橋式起重機，有 1.5 噸
抓斗與煤倉

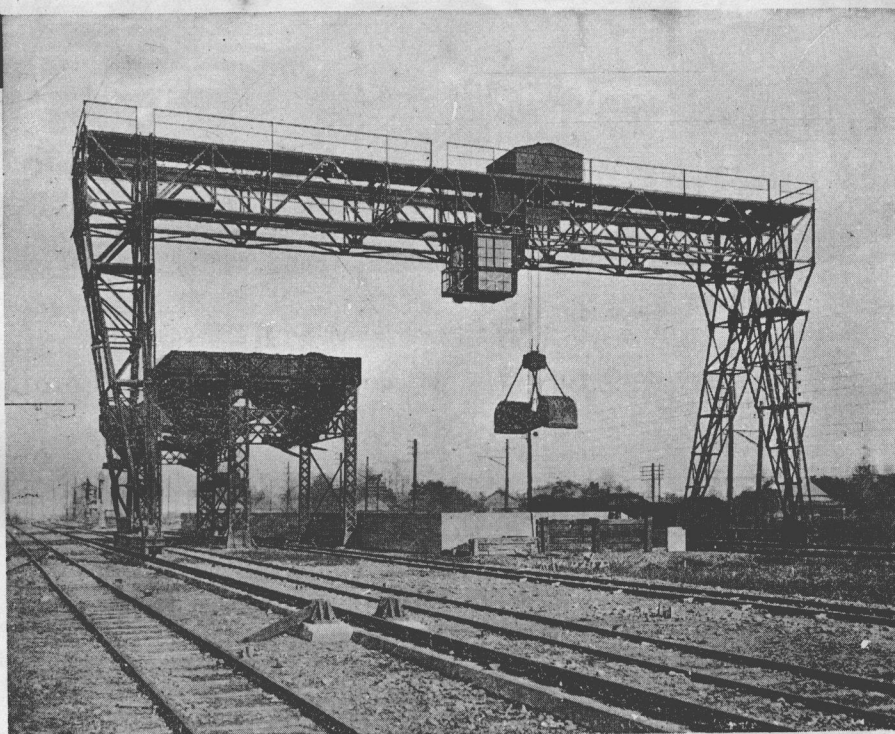
Fig. 12

**Bridge Crane with 1.5-ton
Grab Bucket & Coal Bin**

for

Japan National Railway

Span: 23.5 m
Lift: 14.5 m
Grab capacity: 1.5-ton



13

雙懸臂式裝卸橋

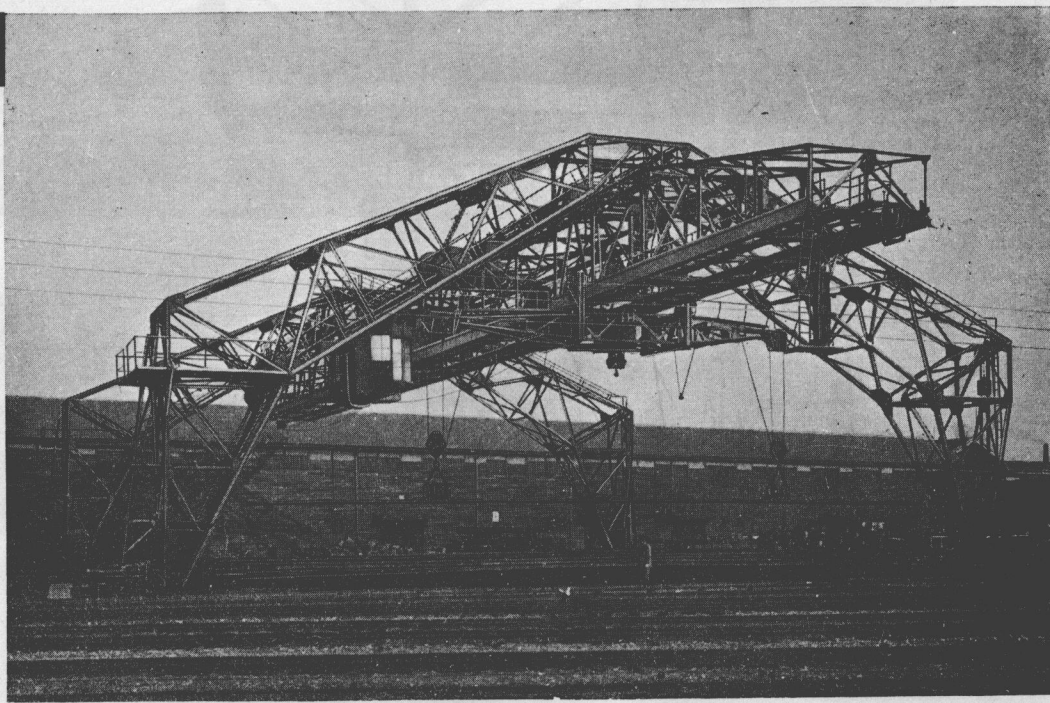
Fig. 13

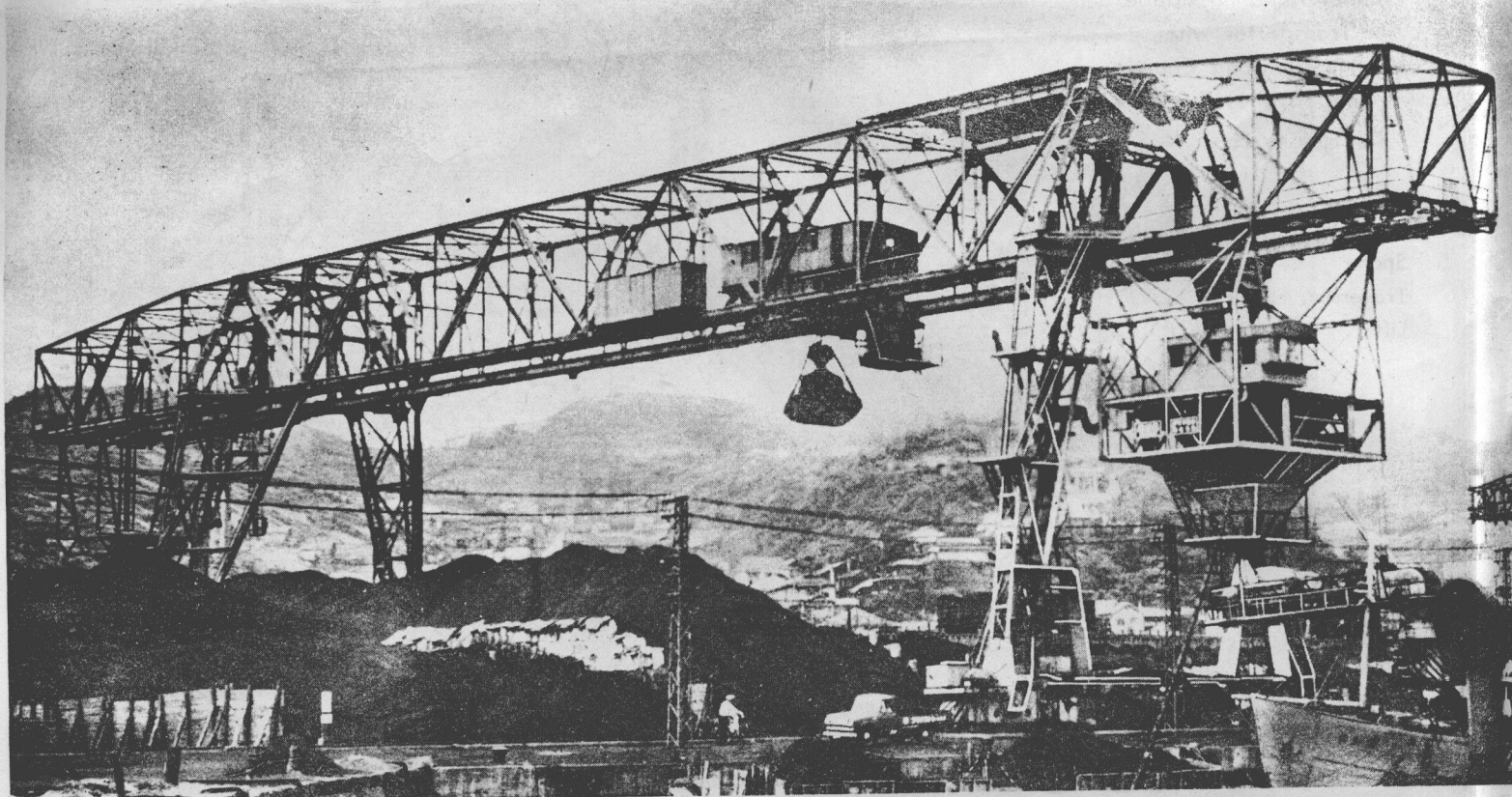
**Rail Handling Double
Cantilever Cranes**

for

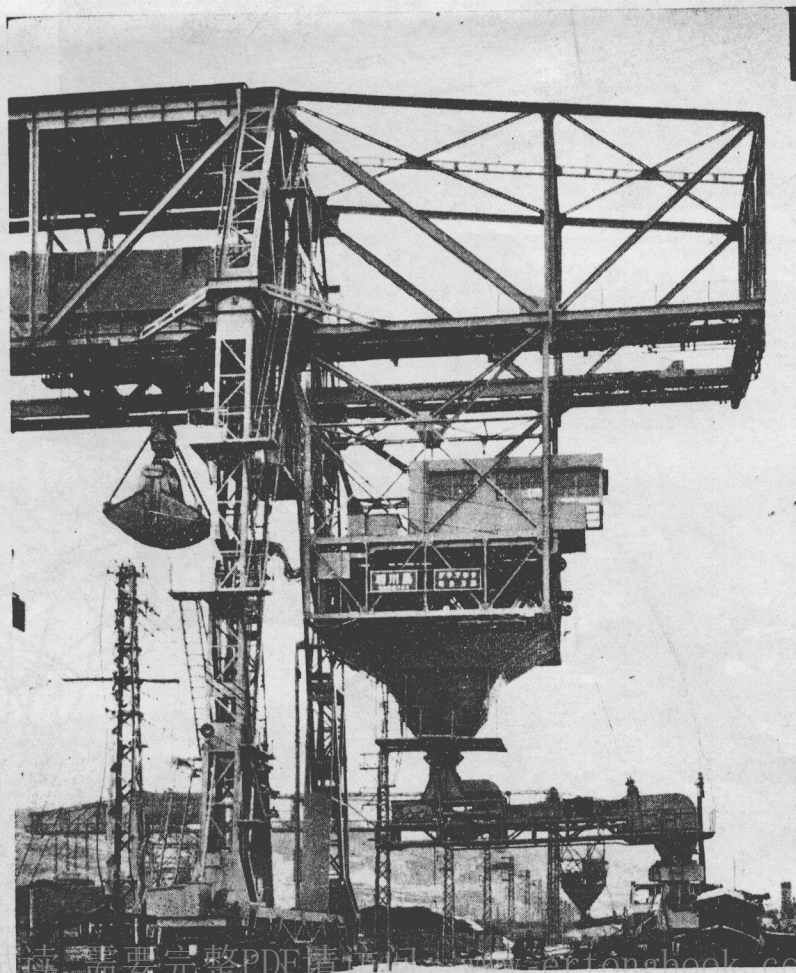
Japan National Railway

Capacity of
lifting magnet: 5-ton
Span: 31.5 m
Traversing range: 58.5 m
Lift: 5.5 m
Length of rail:
Max. 25.0 m





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15

每小時 300 噸的帶有小車的運載橋，
抓斗容量 5 噸

Fig. 14, 15

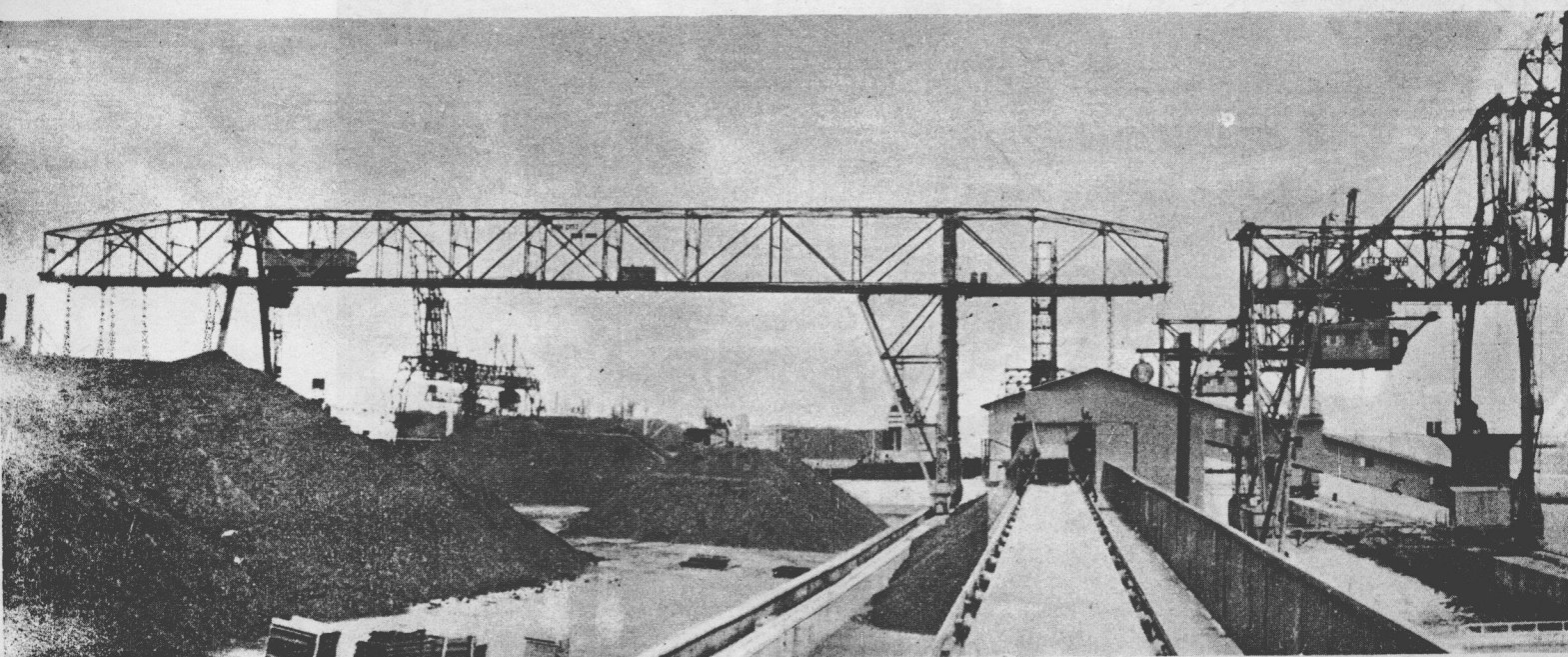
300 t/h Man-trolley Type Transporter
with 5-ton Grab Bucket
for Japan National Railway

Span :	66.0 m
Wheel base :	18.0 m
Height :	18.5 m
Lift :	16.5 m
Speed :	Hoisting 85 m/mn
	Traversing 200 m/mn
	Travelling 20 m/mn
Grab capacity :	5-ton



Fig. 16, 17 每小時 250 噸帶有小車的運載橋, 抓斗容量 5 噸
 250 t/h Man-trolley Type Transporter with 5-ton Grab Bucket
 for Tokyo Electric Power Co., Ltd.

Span :	75.0 m	Lift :	17.5 m
Moving distance of man-trolley :		Speed : Hoisting	70 m/mn
Sea side	10.5 m	Traversing	200 m/mn
Land side	7.0 m	Travelling	29 m/mn
Wheel base :	18.0 m		
Height :	21.0 m	Grab capacity :	5-ton



運輸機 CONVEYERS

Fig. 18 帶式運輸機

Belt Conveyor

for Tanagawa Power Station,
Kansai Electric Power Co., Ltd.

Capacity : 300 t/h
Speed : 100 m/mn

18

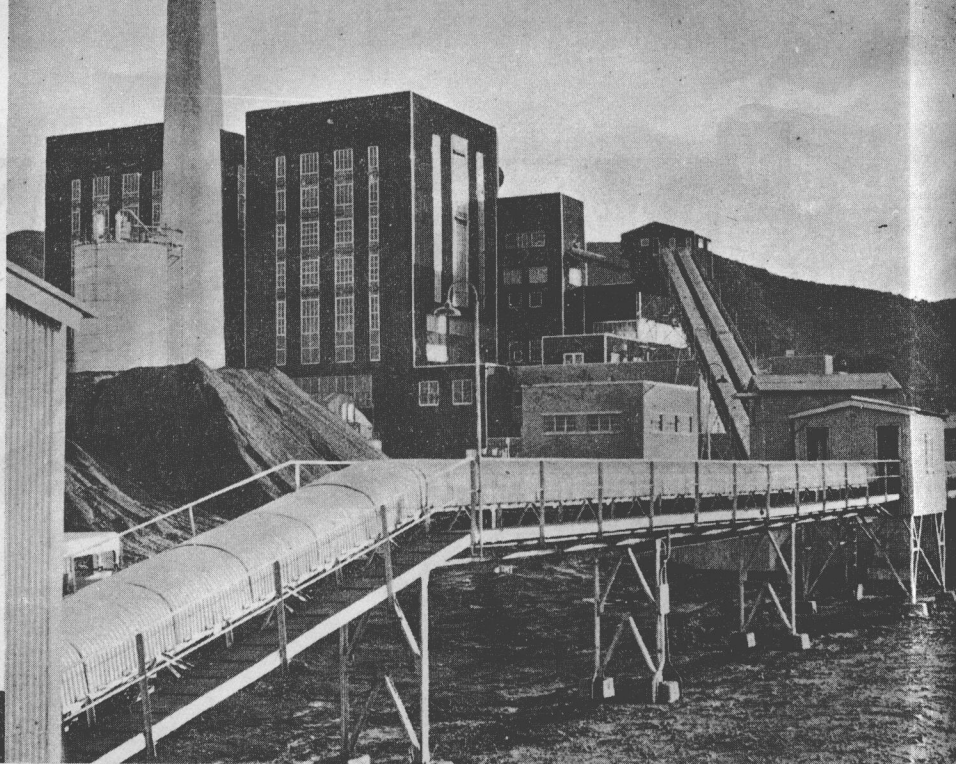


Fig. 19

Belt Conveyor 帶式運輸機

for Sunagawa Second Power Station, Hokkaido Electric Power Co., Ltd.

Capacity : 250 t/h Speed : 120 m/mn

19

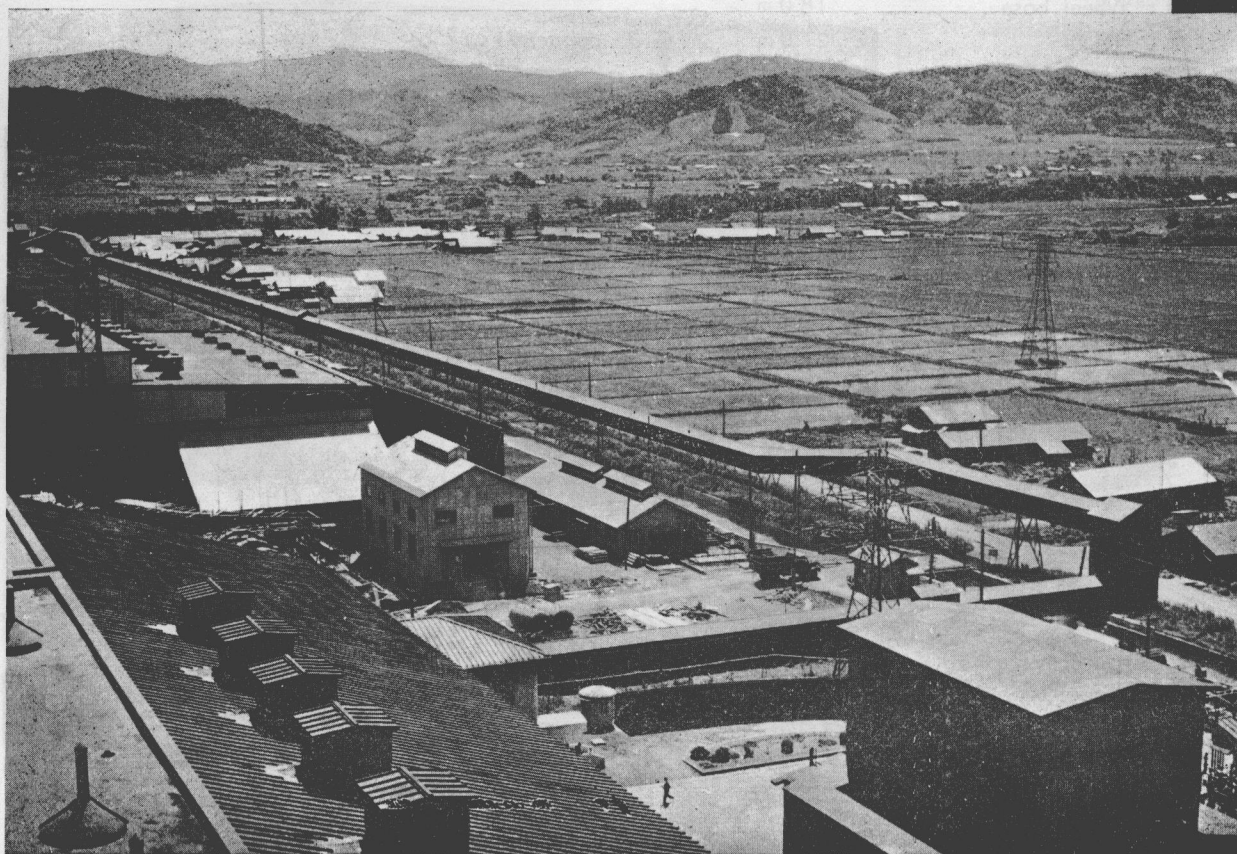
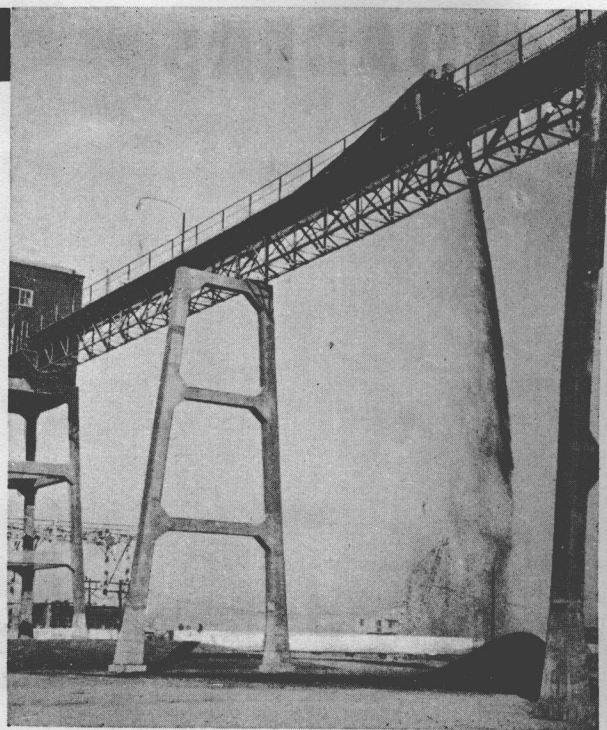


Fig. 20

Belt Conveyor 帶式運輸機
for Karita Power Station, Kyushu Electric
Power Co., Ltd.

Capacity : 200 t/h
Speed : 100 m/mn

20



21

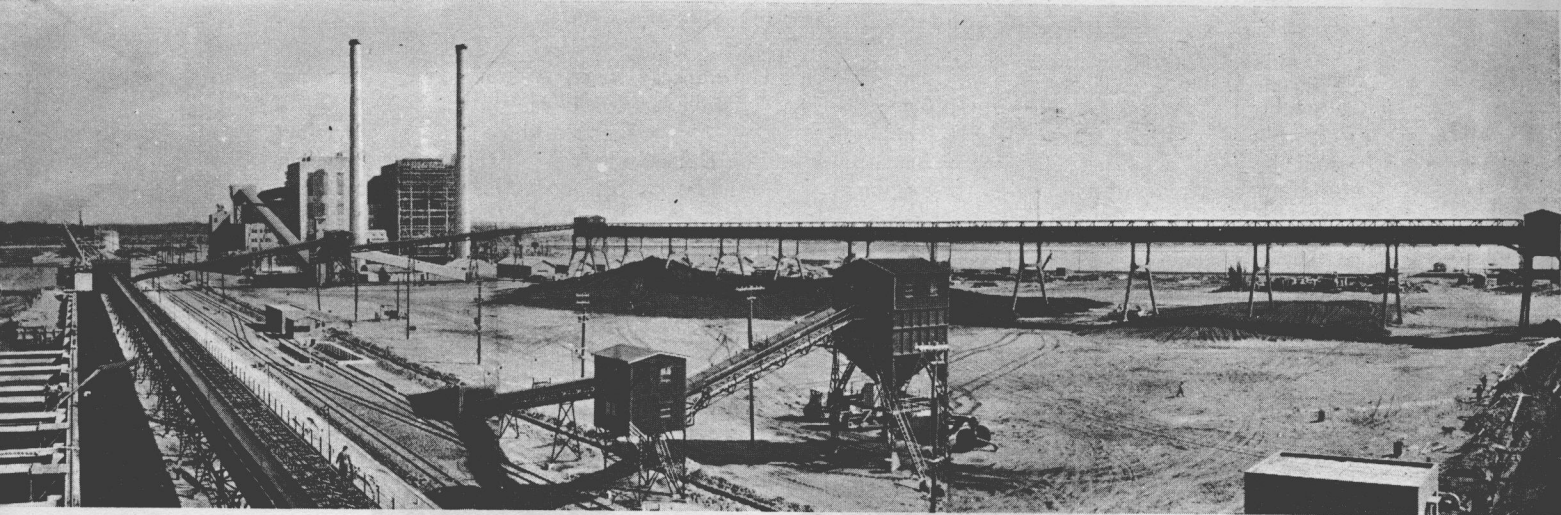


Fig. 21

Belt Conveyor 帶式運輸機
for Chiba Station, Tokyo Electric Power Co., Ltd.

Capacity : 400 t/h Speed : 120 m/mn

22



Fig. 22

Distributor 分料機
for Kawasaki Steel Corp.

Capacity : 150 t/h
Speed of boom conveyor : 80 m/mn
Slewing speed : 1 r/mn
Derricking of
boom conveyor : Movable
Travelling speed : 20 m/mn
Radius of boom conveyor : 13.0 m

LOADERS

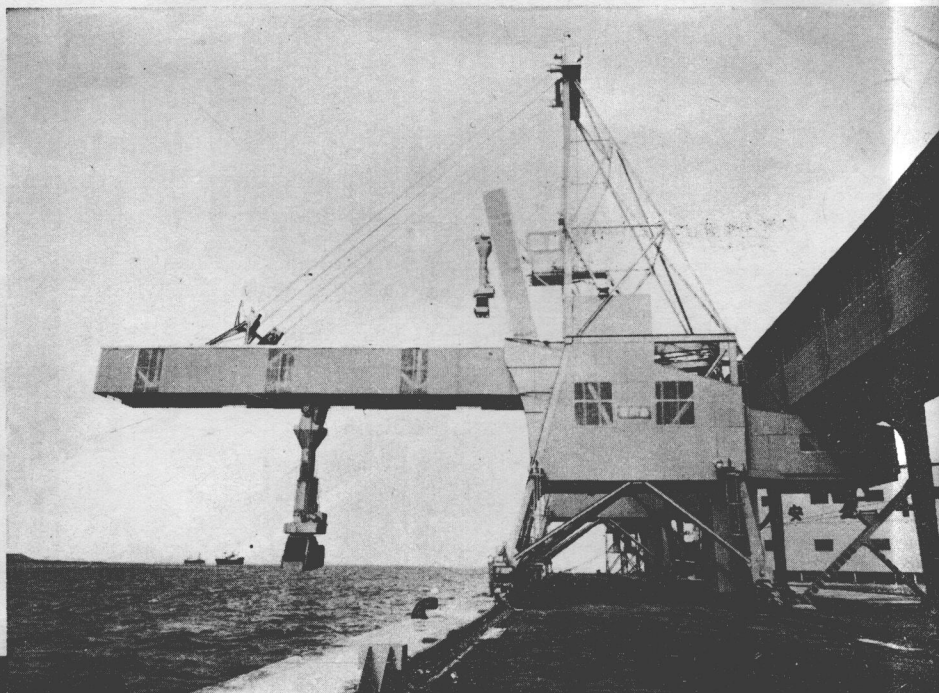
Fig. 23 每小時 400 噸裝煤機

400 t/h Coal Loader

for Misaki Wharf (Muran)

Nippon Futoh Kaiun Kaisha

Gauge :	9.0 m
Radius of telescopic chute :	13.0 m
Speed of boom conveyor :	120 m/mn
Expansion speed of telescopic chute :	8 m/mn
Travelling speed :	30 m/mn
Length of belt conveyor	149 m



23

Fig. 24

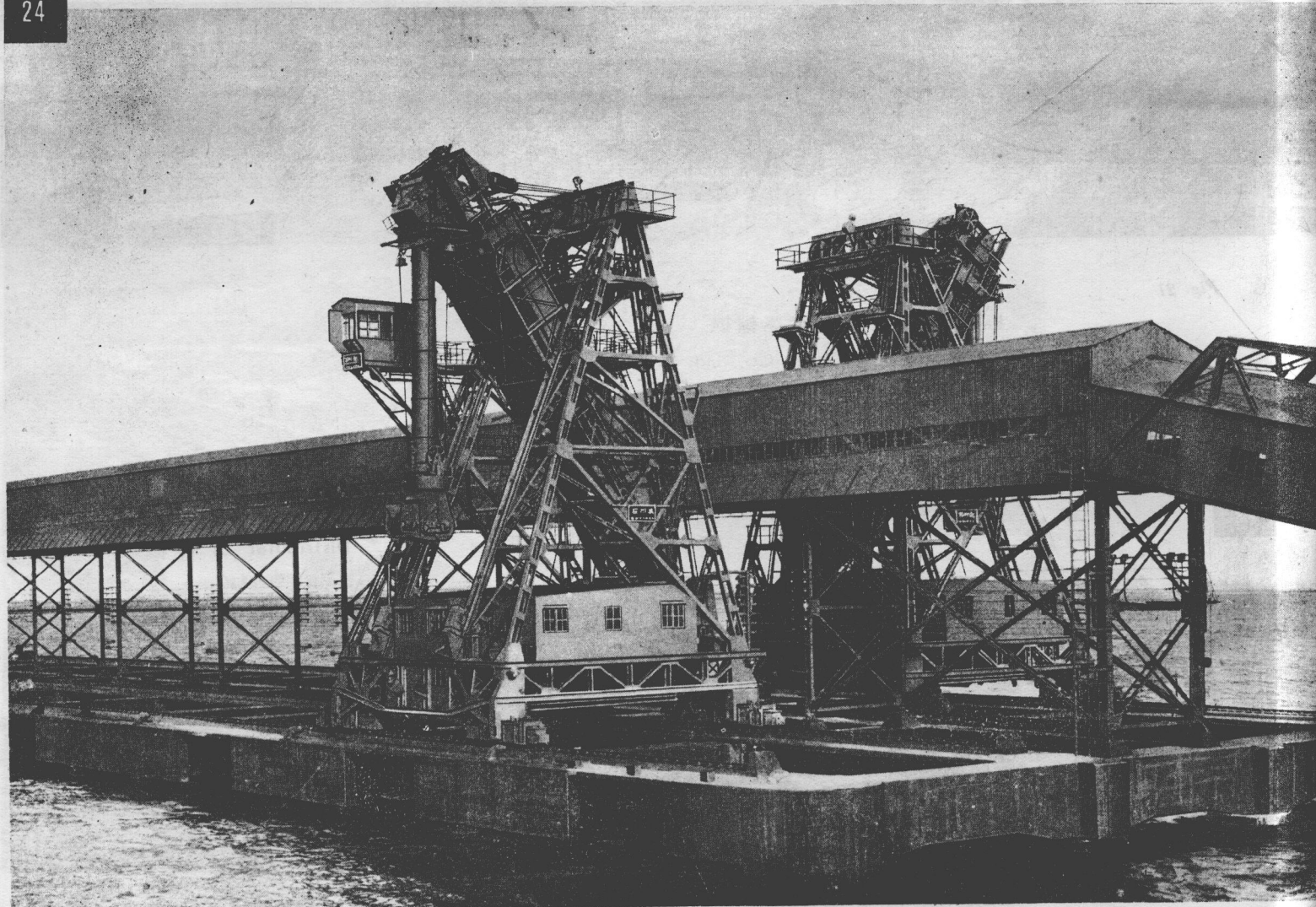
每小時 800 噸裝煤機

800 t/h Coal Loader

for Japan National Railway

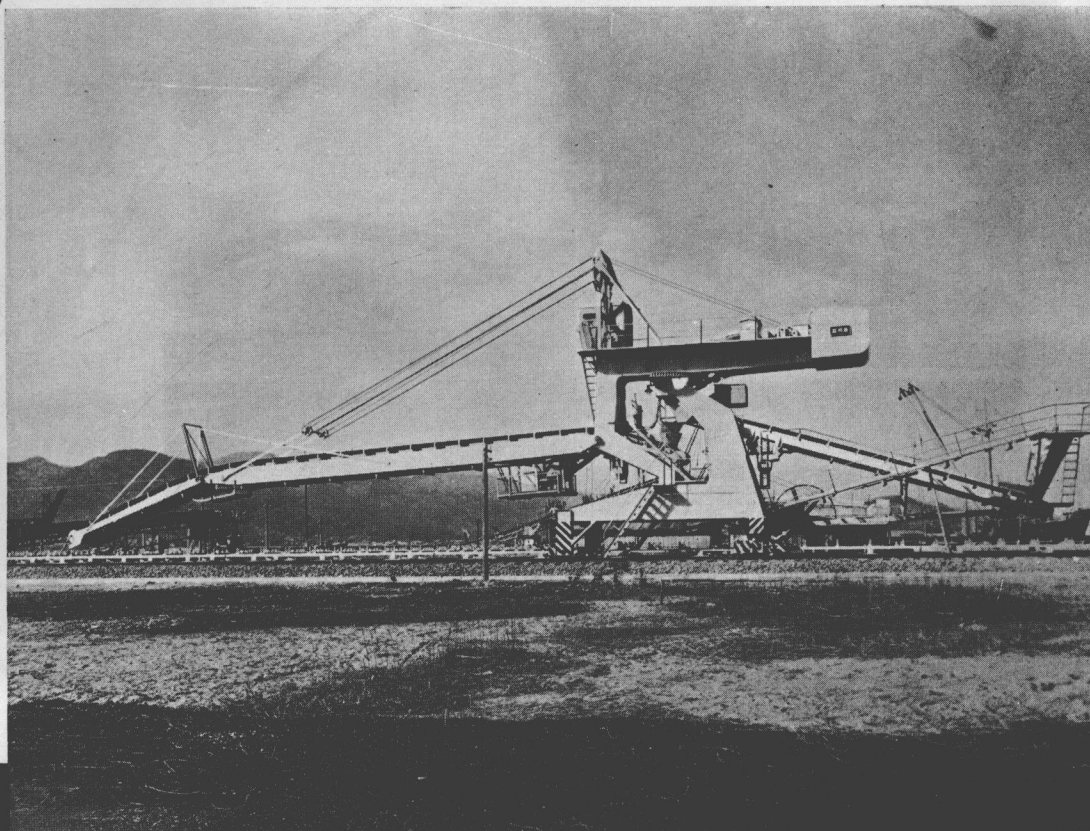
Gauge :	11.0 m	Expansion speed of boom :	5 m/mn
Cutreach :	13.0 m	Expansion speed of telescopic chute	6 m/mn
Lift :	7.0~13.0 m	Travelling speed :	30 m/mn
Height :	9.9 m	Length of belt conveyor :	150 m
Derricking speed of boom :	5 m/mn		

24



STACKERS & RECLAIMERS

堆煤機和裝煤機



25

Fig. 25

每小時 300 噸堆煤機

300 t/h Coal Stacker

for Karita Port, Fukuoka Prefecture

Gauge : 5.0 m
Radius (Max.) : 34.0 m

Travelling speed : 30 m/mn

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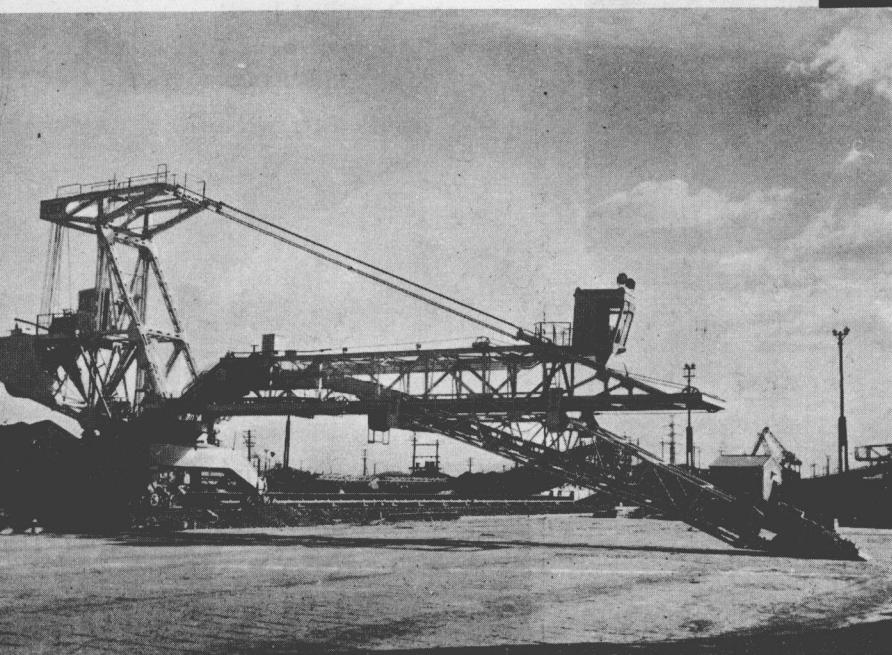


Fig. 26 每小時 400 噸裝煤機

400 t/h Coal Reclaimer

for Misaki Wharf (Muroran),
Nippon Futoh Kaiun Kaisha

Gauge : 5.0 m
Radius (Max.) : 34.0 m
Travelling speed : 40 m/mn

27

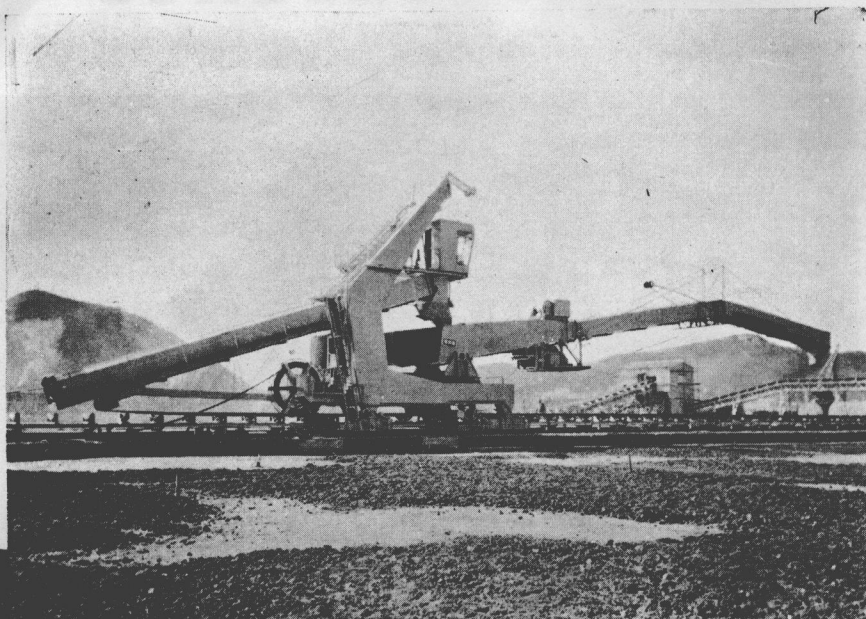


Fig. 27 每小時 400 噸堆煤機
400 t/h Coal Stacker
for Misaki Wharf (Muroran),
Nippon Futoh Kaiun Kaisha

Gauge :	5.0 m
Radius (Max.):	26.0 m
Travelling speed :	40 m/mn

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Fig. 28 每小時 600 噸堆煤機

600 t/h Stacker
for Muroran Works
Fuji Iron & Steel Co., Ltd.

Gauge :	5.0 m
Radius (Max.)	30.0 m
Travelling speed :	30 m/mn

29

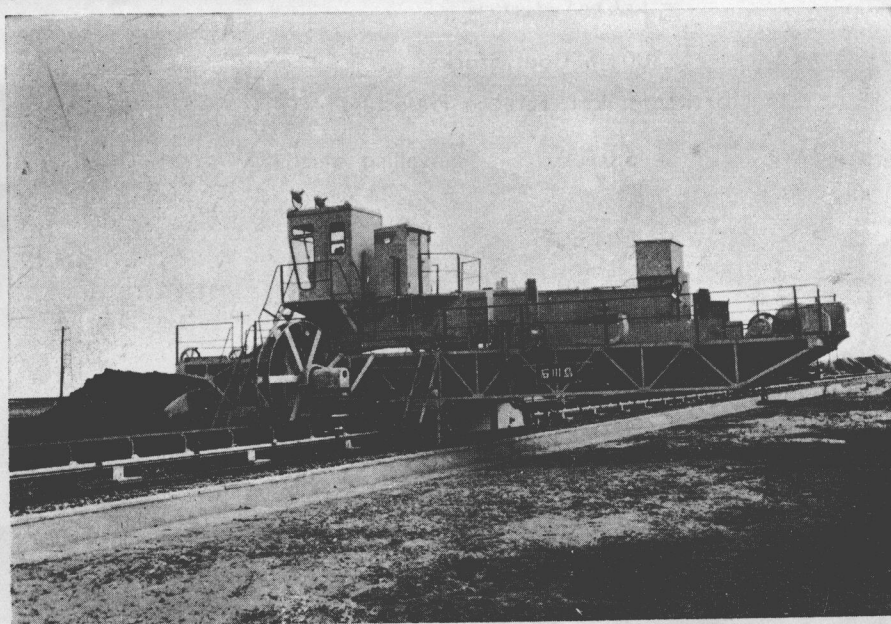


Fig. 29 每小時 300 噸散煤清整機
300 t/h Coal Reclaimer
for Karita Port,
Fukuoka Prefecture

Gauge :	5.0 m
Radius (Max.):	13.0 m
Travelling speed :	30 m/mn

