

SESSION II.
1918.
NEW ZEALAND.

WATERSIDE ACCIDENTS COMMISSION

(REPORT OF THE), TOGETHER WITH RECOMMENDATIONS.

Laid on the Table of the House of Representatives by Leave.

REPORT.

COMMISSION.

Hon. T. M. WILFORD, Minister of Marine (Chairman).
 Captain C. McARTHUR (representing shipping interests).
 Mr. J. MARCHBANKS (representing Harbour Boards).
 Mr. L. GLOVER } (representing the New Zealand Waterside Workers' Federation).
 Mr. J. ROBERTS }

To inquire into and report on the following matters:—

- (1.) Are existing regulations and methods of inspection of all gear used for loading and discharging of all ships and hulks, and for handling cargo on wharves, sufficient to ensure that all gear is in good and safe working-order?
- (2.) If not, what provision should be made—(a) In respect of the main ports; (b) in respect of other ports?
- (3.) What steps can be taken to prevent or minimize accidents to workers engaged in what is known as waterside work?

The Waterside Accidents Commission, having completed its investigations, has the honour to furnish its report.

In all twenty-seven recommendations, numbered from 1 to 27, were unanimously agreed upon by the Commission, while nine extra recommendations, lettered from A to I, were decided by the Chairman of the Commission, as it was impossible to obtain unanimous decisions as to those recommendations, though in regard to several the differences of opinion were so narrow that a decision was simple.

The Commission took evidence at Auckland, Wellington, Napier, Lyttelton, Port Chalmers, and Dunedin, and in all 176 witnesses were examined and cross-examined by each member of the Commission. We desire to record our thanks to all those concerned in waterfront work for their readiness and willingness to assist in the investigations made and in arriving at the conclusions set out herein, and we wish to recognize the readiness of the shipping companies, the Harbour Boards, and the waterside workers to get all information available, which was most marked and made our task a pleasant one.

Inspection of Gear.—To the members of the Commission it came as a surprise to find that the Inspectors of Gear under the Marine Department were not legally authorized to inspect any gear other than gear on ships. After taking evidence it was unanimously decided that Inspectors of Gear under the Marine Department should have their powers extended to include the inspection of all running-gear and all subsidiary appliances used for discharging and loading cargo and coal from or into not only ships, but also hulks, store-ships, or lighters, or handling it on wharves. The extension of the Inspectors' powers in that direction is really necessary, for accidents occur unfortunately on hulks, and lighters, and wharves, and it was considered by the Commission that owners of gear should not be their own Inspectors, but that the inspection of such gear should be made by some neutral or disinterested person. To effect that purpose amendments will have to be made in the Harbours Act and in the Shipping and Seamen Act, and the Commission is of

opinion that the present regulations of Harbour Boards in New Zealand will necessarily require revision and consolidation.

Machinery.—After going thoroughly into the question of the inspection of running-gear the Commission decided that the inspection of all machinery used for loading and discharging ships, hulks, lighters, or store-ships, and for handling cargo on shore, should be carried out by an Inspector of Machinery appointed by the Marine Department, and recommended that legislation be placed upon the statute-book to give effect to the matter.

Winches.—Much evidence was taken in reference to winches, and after considering such evidence we came to the conclusion that it would be well to provide that all winches shall be opened up, dismantled, inspected, and put in thoroughly good working-order at the annual inspection of ships surveyed in New Zealand. This is a precaution warranted by the evidence submitted to us.

Discharging Coal in Baskets.—The evidence submitted relating to discharging coal in baskets by means of a bull-rope on to a stage for loading directly into carts or other vehicles proved to us that it was necessary that a minimum width should be fixed for the staging to be used for such purpose. We agreed that in such cases stages should be not less than 3 ft. 6 in. in width and should be firm. This will minimize the danger to those engaged on this class of work.

T Irons.—Accidents have happened through the T iron which is used for working a bull-rope coming adrift from the coaming. Some witnesses suggested a two-pronged T iron sealed and clamped, and others a single shaft securely fastened to the coaming. After going carefully into the evidence submitted we agreed that it was necessary for the purposes of safety that the T iron be securely bolted to the hatch-coaming, and consequently made the recommendation herein. We also fixed the diameter of the T of such iron at 3 in.

Thwartship Hatch-beams.—Accidents have occurred through men being required to “go out” on beams to ship or unship them. Various devices and methods of obviating this real danger were suggested, and we came to the conclusion that the time had arrived when “bridles” should be shackled to the ends of thwartship beams in order that they might be shipped and unshipped without danger to those engaged in the work. This we believe will minimize accidents. We were informed by witnesses that such a practice was already in vogue in one steamship line, and we propose to make it mandatory and general.

Lanyards on Fore and After Hatch-beams.—Accidents have happened through fore and after hatch-beams falling when men were shipping and unshipping them. The Commission unanimously decided that where fore and after hatch-beams were used lanyards and bridles of sufficient length should always be available for the purpose of enabling such beams to be shipped and unshipped from deck. It also decided that all timber fore and after hatch-beams should be shod with iron to minimize wear and ensure safety. We deem this of first importance.

Lighters and Launches.—In order to ascertain the conditions pertaining to lighters and launches engaged in roadstead harbours the Commission took evidence in Napier, and while there heard witnesses also from Wanganui and Gisborne. We decided that the time had arrived when the Government should make it imperative that all lighters and launches engaged in roadstead work should carry sufficient life-saving appliances in good order and condition to enable all men on board to be furnished with them in case of peril. We also decided that when hulks were being moved from Port Chalmers to Dunedin life-saving appliances should be carried. It was proved to the Commission that such a recommendation was needed, and should be carried out without any delay. The Commission further decided to require all lighters and launches working in roadstead harbours to carry blue lights for signalling when necessary.

Hooks for Coal-baskets.—Serious accidents have occurred through coal-baskets becoming unhooked. Several new kinds of hooks were produced to the Commission, but the actual style of hook was not agreed upon, though it was unanimously decided that a new form of hook was urgently necessary.

Working-loads.—The Commission received much evidence relating to the working-loads of chains, and the working-loads of wire, manila, and flax ropes, and of lanyards on cargo-nets. We decided that it was quite possible for the Marine Department to prepare and issue a table giving the recommended working-loads. It was deemed all-important that such table should be issued without delay, for it was clearly proved to us, and must be evident to all, that a recognized table for all to work by would reduce the risk of accident, and would therefore settle the controversy which frequently arose as to what was a “working-load.”

Breaking-strain of Ropes.—There is no regulation requiring all ropemakers in New Zealand to guarantee by certificate attached to ropes the breaking-strain of any rope manufactured for sale. This seemed to the Commission to be wrong. A rope, apparently new, of $1\frac{1}{2}$ in. thickness, which had never been touched by acid, or used or strained, was produced to the Commission, and this rope could be broken by a hand strain without great effort. Serious consequences might have occurred had this condition of the rope in question not been discovered before use. We feel that the time has arrived when, in the interests of all, responsibility should be placed on those who should be able to test a breaking-strain of a rope at the time of its manufacture or sale.

Lighting Ships and Hulks.—The Commission went exhaustively into the question of lighting ships and hulks when loading or unloading cargo at night-time. We heard evidence as to the necessity of making it mandatory that electric light should be used. We found that no regulation could be made which would meet every port, so it was decided to recommend that electric light be used where such a current could be obtained; and it was also decided that Harbour Boards should provide connecting-plugs where necessary and where current circulated, so that movable clusters could be attached. Generally, we believe it is imperative that electric light should be used where it can possibly be provided.

Fumigation of Vessels.—Evidence was taken dealing with the fumigation of vessels. Instances of men being "gassed" were given the Commission, but though many suggestions were made we felt that it would be wise to decide to ask Dr. Maclaurin to prepare suggested regulations to deal with this very technical matter, and a recommendation to that effect was unanimously agreed upon. We feel, however, that something should be done, and done quickly.

Vessels in Dry Dock or on Patent Slip.—The Commission decided that a regulation was required imposing a penalty in the event of the foreman in charge of work on a vessel in dry dock or on patent slip failing to notify the engineer before the propeller of a ship in dock or on patent slip is turned. Such a practice of turning the propeller while men were working on planks or stages or in the vessels had resulted in accidents, and may easily result in fatalities.

Stanchion and Handrail to Gangway-plank.—The Commission agreed that the gangway-plank to the deck-head of staging on a ship's side should in every case have a set of stanchions and a handrail attached to one side of the plank.

Discharge-pipes and Latrines.—The Commission recommended that all discharge-pipes and latrines, &c., on board a ship in dock or on patent slip should be locked while men were working on stages on a ship's side.

Cleaning Boilers.—The Commission agreed that if the stop-valve of the "working" boiler was locked while boilers were being cleaned it would minimize the risk of accident, and that when cleaning boilers men should not be required to work therein at a temperature of more than 100°.

Deck Load on Lighters.—The Commission was of opinion that the time had arrived when some responsible official should decide the "deck load" to be carried on lighters, and the position which such deck load should occupy on such lighters. We agreed that a competent officer of the Marine Department should in each case be appointed for that purpose, and that a competent officer of the Marine Department should also decide, when required so to do, what space below should be left clear for men loading or discharging lighters.

Number of Gangs to work in a Hold.—The Commission recognized that to have arrived at an agreement in regard to the question of who should decide the number of gangs to work in a hold was certainly of interest to the waterfront, and generally to those who received or shipped cargo. All interested agreed that the decision in this very important matter should be left to the Inspector of Gear under the Marine Department, whose finding should bind all parties. In view of what had happened in past years, and the very vexed questions which had arisen through the obligation not having been placed on any person to decide the question, the Commission felt sure all would be gratified that a solution had been found for the difficulty, and it was to be hoped now that a decision had been come to that all would loyally abide by that decision, which was come to unanimously.

Unfit to Work.—It was agreed by all interests in the Commission that the Inspector of Gear was the officer who should decide whether a man was unfit to work through the influence of liquor, and, in the event of a regulation being framed and brought into force to give effect to the finding, the Waterside Workers' Union agreed to undertake to support the decision of such Inspector.

Cargo for Particular Ports.—The Commission was of opinion that the Inspector of Gear should decide whether the method of loading or unloading cargo into or from a ship's hold for a particular port was a safe one having regard to the safety of the men working such hold. Up till now there had been many disputes and troubles relating to this question, and though the Commission had taken evidence in regard to accidents only it was felt by the members that the words in the recommendation, "safe for working," brought the recommendation within the order of reference.

Ships' Bunkers and Electric Light.—The Commission found that some ships provided electric light for men working bunkers and some did not. It was considered that electric light was safer than any other known light, and it agreed that that light should be provided whenever current was available.

The recommendations to which the foregoing refers are appended.

Signed on behalf of the Commission.

THOMAS M. WILFORD, Chairman.

REMARKS BY THE CHAIRMAN.

The last-mentioned recommendations are the unanimous decisions of the members of the Commission, and I must say that the evidence warrants the findings and justifies action on the lines suggested. The recommendations lettered from "A" to "I," and which are appended, have been decided by me as Chairman after hearing the arguments of the members of the Commission and carefully and thoroughly reviewing the evidence tendered at the various ports. Some of these recommendations were unanimously agreed upon with the exception of details which were left to me to finally decide.

Representations have been made for many years by watersiders for a Commission to examine into the question of accidents on waterfronts, which unfortunately are of daily occurrence, and this Commission was set up by the Cabinet on my recommendation, not with the idea of providing a method of eliminating the "inevitable" accident, which must always be present in every walk of life, but with the idea of reducing the number of accidents that can be labelled "preventable." That such accidents will be reduced if the recommendations are given effect to by Parliament I have no doubt, and I am also voicing the opinions of Captain McArthur and Messrs. Marchbanks, Glover, and Roberts when I say that many methods of safeguarding those engaged in waterside work have been found as the result of this searching inquiry. The fact that no less than twenty-seven new methods of dealing with waterside work have been unanimously agreed upon by the

shipping representative, the Harbour Boards' representative, and the waterside workers' representatives will surely give the public confidence that something has been accomplished and something done. I do not need to stress the interest of the whole Dominion in the prevention of accidents.

In the interests of those who suffer accident and those who depend on them, in the interest of economic progress, and in the interest of commercial prosperity, the result I am sure will be worth the price; while the fact that the watersiders themselves have been able to take part as judges in the deliberation of the Commission will show the workers themselves that the Government has been ready and willing to assist them in the efforts they are making in reducing danger and accident to a minimum.

I wish to place upon record the excellent system adopted by Mr. W. H. Hamer, Engineer of the Auckland Harbour Board, in relation to the ropes used by that Board. The life-history of every rope used by the Auckland Harbour Board is kept in a way which every Harbour Board should imitate. At a glance it is possible for any one to see and trace the machine any rope has been used on, its location, what the rope was used for, the construction of the rope, the maker's name, the circumference, the working-load in tons, the date when the rope was put into use, the number of hours it was used, the date of examination, the number of hours it was worked since last examination, the then condition, the date renewed, and, in short, the life-history of the rope. When this system becomes generally known it will be generally adopted.

In regard to the reports of accidents which happen in various ports, in my opinion the system adopted in every case except that of the Wellington Harbour Board is faulty and unreliable. The Wellington Harbour Board's system, inaugurated by Mr. H. E. Nicholls, of recording all accidents could well be copied by all those concerned in the question.

I desire to thank and to record my indebtedness to Captain McArthur and Messrs. Marchbanks, Glover, and Roberts, the gentlemen who acted with me in the Commission, for their valuable assistance. The manner in which each presented and conducted his case before the Commission was commendable, and I feel sure that the knowledge each possessed of the details of waterside work went far in producing whatever result has been attained.

In conclusion, I believe it will be found in years to come that the carrying into effect of the recommendations of the Commission will reduce "preventable" accidents, which result is of interest to all.

THOMAS M. WILFORD,
Minister of Marine.

RESOLUTIONS SUBMITTED TO AND CONSIDERED BY THE WATERSIDE ACCIDENTS COMMISSION.

1. That it is desirable that the inspection of all running-gear and all subsidiary appliances used for discharging and unloading cargo and coal from or into ships, hulks, store-ships, or lighters, or handling it on wharves, be regularly made by a qualified officer appointed by the Marine Department, and that the necessary amendments be made in the Harbours Act and Shipping and Seamen Act to give effect to such inspection.

2. That it is necessary and important that the present regulations of Harbour Boards be revised and consolidated.

3. That the inspection of all machinery (as distinguished from running-gear) used for loading and discharging ships, hulks, lighters, or store-ships, and for handling it on shore, be undertaken by an Inspector of Machinery appointed by the Marine Department, and that the necessary legislation be placed upon the statute-book to give effect to this recommendation.

4. That at the annual inspection of ships surveyed in New Zealand ship's winches shall be opened up, dismantled, inspected, and put in thoroughly good working-order.

5. That when coal is being discharged by baskets by means of a bull-rope on to a stage for loading directly into carts or other vehicles, such stage shall not be less than 3 ft. 6 in. in width, and shall be firm.

6. That when a T iron is used for working a bull-rope the T iron shall be securely bolted to the hatch-coaming. The T of such iron shall not be less than 3 in. in diameter.

7. That provision be made for shackling bridles to the ends of thwartship hatch-beams to enable such beams to be shipped and unshipped: this provision it being agreed will minimize accidents which may occur through men being required to "go out" on beams for shipping or unshipping the same.

8. Lanyards on fore and after: That where fore and after hatch-beams are used, lanyards and bridles of sufficient length shall be always available and fit for use, and shall be used for the purpose of enabling such beams, or any of them, to be shipped and unshipped from deck.

9. That all timber fore and after hatch-beams be shod with iron to minimize wear and to ensure safety.

10. That on all lighters or launches engaged in roadstead harbours, sufficient life-saving appliances, in good order, shall be carried at all times to enable all men on board to be furnished with same in case of peril. This regulation to apply to hulks when being moved from Port Chalmers to Dunedin.

11. That on all lighters and launches working in roadstead harbours a supply of blue lights shall be carried to enable signals to be made if necessary.

12. Hooks for coal-baskets: It being unanimously agreed that a new kind of hook for coal-baskets is necessary, this Commission recommends that a hook be provided to safeguard the possibility of accidents through baskets becoming unhooked.

13. That a table be issued by the Marine Department giving the recommended working-loads of chain and the working-loads of wire, manila, and flax ropes, of lanyards on cargo-nets, and of hooks if possible.

14. That a regulation be provided requiring all ropemakers in New Zealand to guarantee by certificate attached thereto the breaking-strain of any rope manufactured for sale or sold, with a penalty in such regulation for any breach thereof.

15. Lighting: That all ships and hulks which load or unload cargo at night-time shall be required to use electric lights wherever the same can be obtained, and that where Harbour Boards have electric current available they shall provide connecting-plugs where necessary, to which movable clusters can be attached; and generally that electric light shall always be provided where possible.

16. That this Commission recommends that Dr. Maclaurin be asked to draft regulations regarding the fumigation of vessels in order to minimize the risk of accident to those engaged in waterside work.

17. That when a vessel is in dry dock or on patent slip on no account shall the propeller be turned until after the foreman in charge has notified the engineer that men working on planks or in vessel are clear of the propeller.

18. That a gangway-plank to the deck-head of staging on ship's side shall in every case have a set of stanchions and a handrail attachable to one side of the plank.

19. That all discharge-pipes and latrines, &c., on board ship be locked while men are working on stages.

20. That in cases where boilers are being cleaned the stop-valve of the working-boiler shall in every case be locked down during such work.

21. That when cleaning boilers men shall not be required to work therein at a temperature of more than 100°.

22. That a competent officer of the Marine Department shall decide the deck load to be carried on lighters, and the position which such deck load shall occupy on lighters.

23. That an officer of the Marine Department shall be appointed to decide, when required so to do, what space below shall be left clear for men loading or discharging lighters.

24. That the Inspector of Gear shall decide, when any dispute arises, the number of gangs to work in a hold.

25. That a regulation be prepared providing that the Inspector of Gear shall in every case decide whether a man is unfit to work through the influence of liquor, and such Inspector shall be entitled to send such man away from the work if so satisfied, the union undertaking to support such a regulation.

The above twenty-five recommendations were unanimously agreed to by Captain McArthur, for the shipping companies; J. Marchbanks, for Harbour Boards; and Messrs. J. Glover and Roberts, for the Waterside Workers' Unions.

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THOMAS M. WILFORD.

26. That when cargo is being loaded or discharged from a ship's hold for a particular port or ports, the Inspector shall, in the event of a dispute arising, decide whether the method of such loading or discharging is safe for the working of the same.

27. That ships' bunkers, while being worked, shall be lighted with electric light wherever current is available.

CHAS. MCARTHUR.

J. MARCHBANKS.

L. GLOVER.

J. ROBERTS.

A. That when coal is being discharged from ships or hulks by means of trams, stout planks of uniform thickness and of a total width of 30 in. shall be provided and securely fixed alongside the tram-line; or, in the alternative, stout planks of uniform thickness and of a total width of 24 in., with stanchions and a life-line on side, shall be provided.

B. That on all ships registered in New Zealand, and on all hulks whether registered in New Zealand or not, all hatch-landings on coamings or beams shall be not less than 2½ in. in width.

C. That in the selection of men to act as Inspectors of Gear (head) experience and fitness for the position shall be the tests for appointment.

D. Insanitary condition of ships' holds: That in any port where there is a Port Health Officer such officer shall, when complaint is made to him by men engaged in working in a hold that such hold is insanitary, order such steps to be taken as he may deem necessary to clean such hold, and the owners of the ship concerned shall be compelled to see that the course prescribed by him is carried out to his satisfaction. Where there is no Port Health Officer, then the Marine Department shall appoint some person to act in place of such Port Health Officer.

E. That the Inspector of Gear shall be allowed in his absolute discretion, and in the interest of the safety of those working below deck, to stop for such time as he thinks necessary "chipping" at any particular place he may think fit, so that orders being given may be clearly heard below.

F. That while men are working on the side of a ship in dock or on slip it shall be the duty of the owner of such dock or slip to have on deck a man whose duty it shall be to prevent ropes fastened to the deck being interfered with, or anything being thrown over the side so as to endanger those working on the side; and when men are working on the side of a ship on other occasions the same duty and obligation shall be imposed on the ship.

G. That the Inspector of Machinery draft a regulation with reference to the question of sludge-hole doors of steam boilers being taken off or left on while boilers are being cleaned.

H. That an extra man be employed in each stokehold during the time in port when men are engaged cleaning the inside of boilers, or in tank ends of furnaces, to safeguard the possibility of accidents.

I. Where, in loading or unloading a ship, any obstruction prevents the bull-rope man being in full, clear, and continuous view of the winchman, an extra man shall be employed who shall be in full view of both winchman and bull-rope man, and whose sole duty shall be to communicate signals from winchman to bull-rope man and *vice versa*.

The above recommendations were decided upon by me after hearing the opinions of the members of the Commission. They are not unanimous decisions.

22nd July, 1918.

THOMAS M. WILFORD.

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