

# BOILER INSPECTION.

## CHAPTER 27.

[S. F. 4.]

### BOARD OF BOILER INSPECTORS, LICENSES, ETC.

AN ACT to Establish a Board of Inspectors for Steam Vessels and Steam Boilers, and to Provide for Licensing Engineers of Steam Engines.

*Be it Enacted by the Legislative Assembly of the State of North Dakota:*

§ 1. BOARD, HOW APPOINTED—TERM OF OFFICE.] There shall be appointed by the Governor a Board of Inspectors, consisting of one from each of the several judicial districts of the State, whose duty it shall be to inspect all steam boilers in use within his district, not subject to inspection under the laws of the United States, and to examine and grant certificates of license to all steam engineers entrusted with the care and management of steam boilers within said district. Said inspectors shall hold their respective offices for two years from the date of appointment, unless removed for cause by the Governor.

§ 2. ELIGIBILITY.] No person shall be eligible to hold office of inspector of boilers who is either directly or indirectly interested in the manufacture or sale of boilers or steam machinery, or any patented article required to be used or of general use in the construction of steam boilers or engines, or who is not of good moral character, a practical engineer, and suitably qualified by experience in the construction of steam boilers, or such experience in their manufacture as to enable him to perform the duties of the office, and no person shall enter upon or perform any of the duties of inspector who has not taken and subscribed an oath, and filed the same with the Secretary of the State, that he will faithfully and impartially perform the duties of his office.

§ 3. DUTIES OF BOARD.] Said inspectors shall, in April next after the passage of this act, and each year thereafter, meet as a board at Bismarck, North Dakota, and establish such rules and regulations for the inspection of the steam boilers herein provided for, as shall be required by the terms of this chapter. They shall also prescribe rules and regulations for the inspection of the hulls, machinery, boilers, steam connections, fire apparatus, life saving appliances and equipments of all steamers, propelled in whole or in part by steam,

and navigating the inland waters of the State. They shall also designate the number of passengers that each steam vessel may safely carry, and it shall be unlawful for any master or owner of any steam vessel herein provided for, to carry a greater number of passengers than is allowed by the inspector's certificate, and such regulations, when approved by the Governor, shall have the force of law.

§ 4. PENALTY FOR FAILURE TO HAVE STEAM BOILER INSPECTED.] Every owner, lessee or other person having charge of steam boilers on any boat, or boat propelled in whole or in part by steam, not subject to inspection under the laws of the United States, shall cause the same to be inspected at least once in each year by the inspectors herein provided for, and every such owner, lessee or person having charge of such boilers or steam vessel, who shall raise steam and operate such boilers and machinery without such inspection, shall be subject to a penalty of one hundred (100) dollars, said amount to accrue to the State.

§ 5. STEAM VESSELS, WHEN TO BE INSPECTED—CERTIFICATE.] The said inspectors shall once in each year at least, upon application, in writing, of the owner, lessee or manager, carefully inspect the hull, boiler, machinery and equipments of all steam vessels liable to inspection under this act, and shall satisfy themselves that every such vessel is of a structure suitable for the service in which she is to be employed and has suitable accommodations for passengers and crew and is in a condition to warrant the belief that she may be used in navigation as a steamer, with safety to life, and that such equipments as life preservers, floats, pumps, hose, anchors and other things necessary to insure safety, have been provided. When the inspection of a steam vessel is completed and the inspectors approve the vessel and her equipments throughout, they shall make and subscribe a certificate to the Secretary of the State, in such form as the Board of Inspectors shall prescribe; such certificate shall be subscribed and verified by the oath of the inspector making it, and a copy of said certificate shall be furnished by the inspector to the managing owner or master of said steam vessel, who shall post the same in a conspicuous place on said boat. The original certificate shall be kept on file in the office of the Secretary of the State.

§ 6. MANNER OF TESTING.] The said inspectors shall, in addition to their duties as inspectors of steam vessels, inspect all steam boilers or steam generators before the same shall be used, and once at least in each year thereafter they shall subject all boilers to hydrostatic pressure, and shall satisfy themselves by a thorough examination inside and out, and by hammer test, after hydrostatic pressure, that the boilers are well made of good and suitable material; that the openings for the passage of water and steam respectively, and all pipes and tubes exposed to heat are of proper dimensions and free from obstructions; that the flues are circular in form; that the friction (fire line) of the fur-

nace is at least two inches below the prescribed minimum water line of the boilers; that the arrangements for delivering the feed water are such that the boilers cannot be injured thereby, and that such boilers and their steam connections may be safely employed without peril to life. They shall also satisfy themselves that the safety valves are of suitable dimensions, sufficient in number and properly arranged, and that the safety valve weights and springs are properly adjusted so as to allow no greater pressure in the boilers than the amount prescribed by the inspection certificate; that there is a sufficient number of guage cocks properly inserted, suitable guages that will correctly record the pressure of steam; and that a fusible plug is properly inserted, so as to fuse by the heat of the furnace whenever the water in the boilers falls below its prescribed limits, and that adequate and certain provisions for an ample supply to feed the boilers at all times so that in high pressure boilers, the water shall not be less than four inches above the top of the flues, and that means for blowing out are provided so that the mud and sediment may be removed while the boiler is under pressure of steam. In subjecting to hydrostatic tests, boilers usually designated as high pressure, the inspector shall assume one hundred and twenty-five pounds to the square inch as the maximum pressure allowable as a working pressure for new boilers of forty-two inches in diameter, made in the best manner, of plates one-fourth of an inch thick, of good materials; but the inspector shall rate the working power of all high pressure boilers according to their strength, compared with this standard, and in all cases the test applied shall exceed the working power allowed, in the ratio of one hundred and sixty-five to one hundred and ten. In subjecting to the hydrostatic test boilers usually designated as low pressure, the inspector shall allow as a working power for each new boiler, a pressure of only three-fourths the number of pounds to the square inch to which it has been subjected by the hydrostatic test. Should the inspector be of the opinion that any boiler, by reason of its construction or material, will not safely allow so high a working pressure as herein provided, he may, for reasons to be stated specially in his certificate, fix the pressure of such boiler at less than three-fourths of the test pressure. No boiler or steam pipe nor any of the connections therewith, shall be approved which is made in whole or in part of bad material or is unsafe from any cause. Nothing herein shall be construed to prevent the use of any boiler or steam generator which may not be constructed of riveted iron or steel plates, when the Board of Inspectors have satisfactory evidence that such boiler or steam generator is equal in strength and as safe from explosion as boilers of the best quality constructed of riveted iron or steel plates.

§ 7. PENALTY FOR CONSTRUCTING IMPERFECT STEAM BOILER.]  
Every person who constructs a boiler or steam pipe of iron or steel plates, known to be faulty or imperfect, or who drills any rivet-hole

to make it come fair, or who delivers any such boiler for use, knowing it to be imperfect in its flues, flanges, riveting, bracing, or in other of its parts, shall be fined two hundred (200) dollars, one-half for the use of the informer.

§ 8. SPECIAL INSPECTIONS.] In addition to the annual inspection, it shall be the duty of each inspector to examine at any time, when in his opinion such examination shall become necessary, all such boilers within his district as shall become unsafe from any cause and to notify the owners or person using such boilers of any defect, and what repairs are necessary in order to render them safe; and it shall be the duty of the person operating or owning any such boiler to cease to use the same until such repairs are made; and in case of failure to comply with the requirements of said inspector, the person operating or owning any such boiler shall be liable to a fine not exceeding one hundred (100) dollars, and liable for any damage to person or property resulting therefrom.

§ 9. FUSIBLE PLUGS.] Every steam boiler shall be provided with a fusible plug of good Banca tin, inserted in the flues, crown-sheet or other part of the boiler most exposed to the heat of the furnace when the water falls below the prescribed limits.

§ 10. INSPECTORS TO HAVE FREE ACCESS.] It shall be the duty of owners or managers of steam boilers, mentioned in this act, to allow said inspector free access to the same, and it is hereby made the duty of engineer operating the same to assist the inspector in his examination, and to point out any defect they may know in the boiler or machinery in their charge.

§ 11. LICENSE, WHEN REVOKABLE—WHO QUALIFIED TO OPERATE STEAM BOILERS.] No person shall be intrusted with the operating of any steam boiler or steam machinery who has not been examined by an inspector and found competent to perform the duties of an engineer and receive from such inspector a written or printed license to so act. Engineers shall be divided into three classes, viz: chief engineer, assistant engineer and special engineer. No license shall be granted to any person to perform the duties of chief engineer whose knowledge of steam machinery and experience as an engineer is not such as to justify the belief that he is competent to take charge of all classes of boilers and machinery. No license shall be granted to any person to act as assistant engineer unless his knowledge of steam machinery and habits of life are such as to warrant the belief that he is competent to manage safely and without danger to life, ordinary steam machinery. Special engineers may be licensed to operate steam thresher engines and engines of kindred class, when found on examination to be sufficiently acquainted with the duties of an engineer to warrant the belief that he can safely be entrusted to perform such duty. Whenever complaint is made against an engineer holding a license from a State Inspector that he has, through negligence, want of skill or inattention to duty, permitted his boilers to burn

or otherwise become in bad condition, it shall be the duty of the inspector, upon satisfactory proof of such negligence, to revoke the license of such engineer; and no engineer shall run his engine longer than seven days without cleaning out the boiler under penalty of this act.

§ 12. LICENSE TO BE CONSPICUOUSLY POSTED.] An engineer running a stationary engine, shall keep his license in a public place in the engine room, which license shall be subject to inspection by any inspector or other public official. Engineers running or operating boilers and engines other than stationary ones, shall keep their certificates with them and subject to examination by any inspector, public official, or other person interested therein. Any person operating a steam boiler or engine without a license as provided for by this act, or any person employing anyone to operate a steam boiler or engine, who does not have a certificate as provided in this act, shall be guilty of a misdemeanor and fined not to exceed two hundred (200) dollars, or imprisoned in county jail not to exceed one year, or both such fine and imprisonment, as the court may deem advisable. The license of chief and assistant engineers shall be good for the time issued in any part of the State, but special licenses shall be good only in the judicial district where granted, and in case of removal to another district a new license must be taken out in said district, and a failure or neglect so to do will incur the penalty in Paragraph 2 of this section.

§ 13. INSPECTORS MAY ACT JOINTLY.] In making the inspection of boilers, machinery or steam vessels herein provided for, the inspectors may act jointly or separately, but the inspector or inspectors making such inspection shall, in all cases, subscribe and make an oath to the certificate of inspection; any inspector who shall willfully certify falsely regarding any steam boiler or its attachments, or the hull and equipments of any steam vessel, or grant license to incompetent persons to act as engineers, or grant a license to any person better than the grade he should have shall, on conviction thereof, be punished by a fine not exceeding five hundred (500) dollars, or imprisonment not exceeding one year in the State prison, or both, at the discretion of the court.

§ 14. FEES FOR INSPECTION.] Each inspector shall be authorized to charge a fee of four (4) dollars for the inspection of each single boiler and its steam connections, within his district, and two (2) dollars for each additional boiler, when connected, said fee being payable at the time of the delivery of the inspector's certificate of approval. The fee for the examination of engineers and for the issuing of a license certificate shall be two (2) dollars, and for the annual renewal of the same fifty (50) cents, said amounts to be the property of the inspector, who shall receive no other compensation for his services.

§ 15. RAILROAD LOCOMOTIVES EXEMPT.] This act shall not apply to railroad locomotives, nor to boilers owned or controlled

by railway companies, unless used upon steam vessels navigating the inland waters of the State; nor shall engineers employed by railroad companies be required to procure licenses from the State Board of Inspectors, but the penalties herein provided for shall not obtain in any case prior to the time the inspector or inspectors have notified the persons affected that they are ready to make inspection as herein provided for.

§ 16. INSPECTOR NOT TO ACT AS AGENT.] No inspector shall act as agent for any machinery manufacturer in the sale of machinery, under penalty of removal by the Governor.

§ 17. REPEAL.] All acts or parts of acts inconsistent with this act are hereby repealed.

§ 18. EMERGENCY.] Whereas, an emergency exists in that boilers should be inspected previous to July 1st, therefore, this act shall take effect and be in force immediately after its passage and approval.

Approved January 22, 1890.

---

## BONDS.

### CHAPTER 28

[S. F. 57.]

#### PROVIDING FOR ISSUE OF NORTH DAKOTA REVENUE BONDS.

AN ACT to Provide for Borrowing Money to Defray the Extraordinary Expenditures of the State Government.

*Be it Enacted by the Legislative Assembly of the State of North Dakota:*

§ 1. BONDS, HOW ISSUED.] That the Governor, State Auditor and State Treasurer are hereby authorized and empowered to prepare for issue negotiable bonds of the State of North Dakota to the amount of \$200,000; such bonds shall be made payable to the purchaser or bearer and payable in fifteen years from date of issue, and shall bear interest at a rate not to exceed four and one-half per cent. per annum, interest payable semi-annually on the first day of January and July of each year, with coupons attached for each interest payment, said interest coupons to be made payable anywhere in the United States; said bonds shall be executed under the great seal of the State by the Governor and Treasurer, and shall be attested by the Secretary of State, and shall be negotiated by the Treasurer.

§ 2. PROPOSALS.] The State Treasurer shall receive sealed proposals for the purchase of said bonds, and he shall give public