

Scope of Examination.

- (e) Show by oral examination that he is conversant with engines and boilers, the different parts and uses of same, including the feeding of a boiler and the running of an engine, the keeping of a boiler clean, and explain how he would overcome simple defects that might arise in the management of boilers and engines.

WINDING-ENGINES.

WINDING-ENGINE DRIVER: STEAM AND HYDRAULIC (COMPETENCY).

29. The steam winding-engine driver's certificate entitles the holder to drive and have charge of any steam or air machinery used for winding purposes in a mine; and the hydraulic winding-engine driver's certificate any hydraulic machinery used for winding purposes in a mine.

The holder of the steam winding-engine driver's certificate is deemed also to be the holder of the locomotive and traction and the second-class engine-drivers' certificates, and he may also drive and have charge of any log-hauling engine and its boiler.

30. An applicant for examination for the steam or hydraulic winding-engine driver's certificate must—

- (a) Be at least twenty-one years of age;
- (b) Forward with his application a fee of £1;
- (c) Furnish a testimonial as required by Regulation 15 (c);
- (d) Furnish a medical certificate as required by Regulation 19;
- (e) Produce satisfactory proof of the following service qualifications:—
 - (1) That, for at least six months, he has driven or assisted to drive a steam-engine, or attended or assisted in attending a boiler; and
 - (2) That, for at least 160 hours, he has served as assistant to a certificated winding-engine driver in operating a steam, air, or hydraulic winding-engine by means of which persons are drawn up, down, or along any shaft, pit, or inclined plane in a mine, or by means of which material is raised or lowered when a shaft is being sunk in a mine;
- (f) Undergo a practical test on a steam or hydraulic winding-engine, as the case may be, and satisfy an Inspector of Mines and a duly certificated winding-engine driver approved by the said Inspector of Mines that the candidate is competent to work the said winding-engine in raising and lowering men in a mine.

31. The subjects for oral examination shall be as follows:—

Steam or Air Winding Machinery.

- (a) The different classes of air or steam engines used in winding, and also all the internal and moving parts, and the remedying of simple defects that might arise in the use of engines.
- (b) The different appliances and indicators used to show the position of cage in shaft or truck on plane in which persons are conveyed; also the meaning of the different signals used in mines.
- (c) The different kinds of boilers used for winding-engines and their connections, the effect of impurities in water used in such boilers and the different methods adopted to keep them clean, the remedying of simple defects that might arise in the use of boilers, and the prevention of priming in boilers.
- (d) The power of air or steam engines.
- (e) All subjects included in the examinations for the locomotive and traction and the second-class engine-drivers' certificates.

Hydraulic Winding Machinery.

- (f) The different appliances and indicators used to show the position of cage in shaft or truck on plane in which material or persons are conveyed; also the meaning of the different signals used in mines.
- (g) The different appliances in winding with hydraulic machinery, and the methods adopted for letting on and shutting off the water, and the brake employed to control the winding-gear.
- (h) The power of different classes of hydraulic machinery.