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Examination Standard for Centrifugal Fire Pumps (In-Line Type)

Class Number 1371

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Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standards is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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1. INTRODUCTION

1.1 Purpose

1.1.1 This standard states testing and certification requirements for in-line, single stage type centrifugal fire pumps which supply water to fire protection systems. These pumps must have an extended service life, throughout which they must be capable of operating reliably at rated capacities and pressures during emergency fire incidents, despite being idle for extended periods.

1.1.2 Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2 Scope

1.2.1 This standard encompasses the design and performance requirements for in-line type, centrifugal fire pumps for use in fire protection systems. Certification is limited to single stage, in-line type, centrifugal fire pumps that have a minimum rated discharge pressure of at least 40 psi (275 kPa). In cases where metric sized in-line type, centrifugal fire pumps are to be examined for certification, test criteria comparable to the United States equivalent size shall be used.

1.2.2 Requirements for other types of centrifugal fire pumps are detailed in the following Examination standards:

Class	***Centrifugal Fire Pump Type***
1310	Multi Stage, Multi Outlet
1311	Split-Case Type, (Axial or Radial)
1312	Vertical Shaft Turbine Type
1319	Horizontal, End-Suction Type
1370	Vertical Turbine Barrel Type

1.2.3 Requirements for other major components in the pump package are detailed in the following Examination Standards:

Class	***Equipment***
1046	Fire Pump Flowmeter Systems
1321/1323	Controllers for Electric Motor Driven and Diesel Engine Driven Fire Pumps
1333	Diesel Engine Fire Pump Drivers
1336	Fire Pump Couplings and Flexible Connecting Shafts for Fire Protection Service
1359	Trim Water Pressure Relief Valves
2311	Pressure Gauges for Fire Protection Systems

1.3 Basis for Requirements

1.3.1 The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, trade associations, jurisdictions and/or loss control specialists was also considered.

1.3.2 The requirements of this standard reflect tests and practices used to examine characteristics of single stage, in-line type, centrifugal fire pumps for the purpose of obtaining Certification. Single stage, in-line type, centrifugal fire pumps having characteristics not anticipated by this standard may be certified if performance equal, or superior to, that required by this standard is demonstrated.