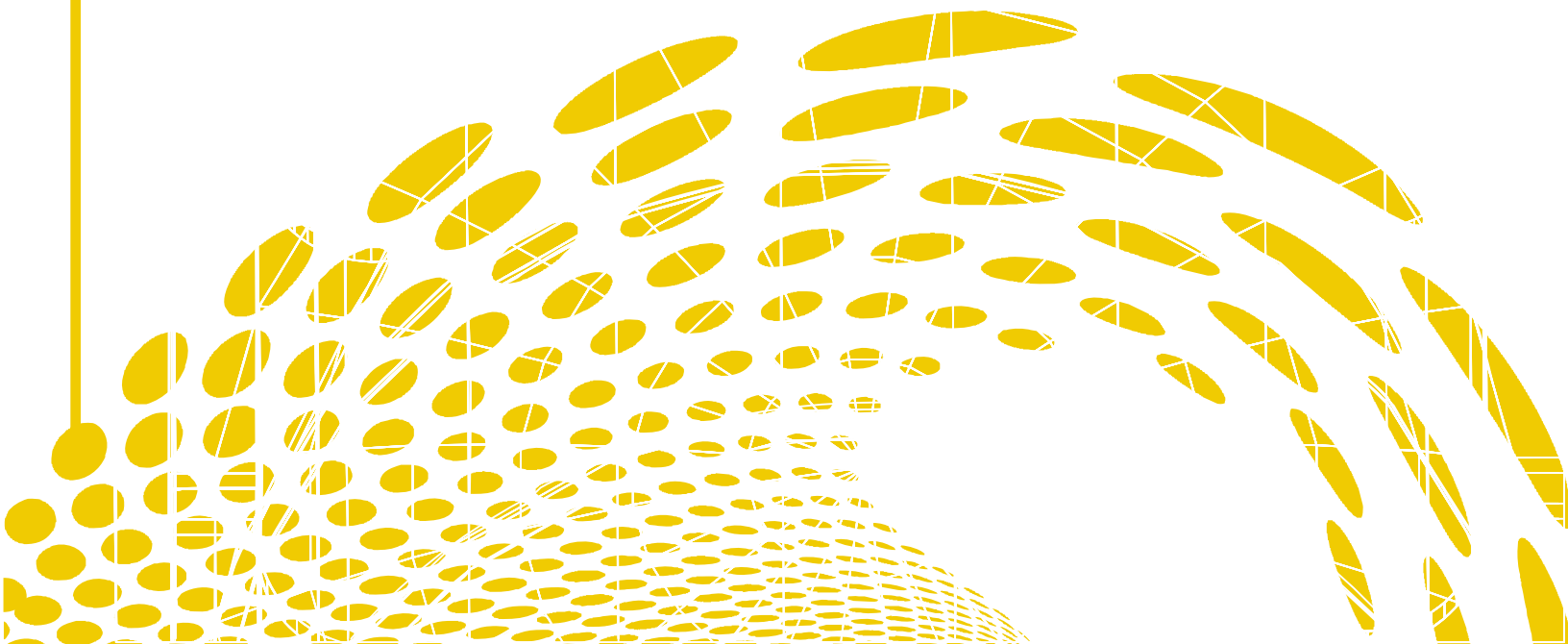
ASME STANDARDS TECHNOLOGY, LLC

STP-SA-092

COMPARISON REPORT BETWEEN ASME A17.1/B44 AND ISO 8100-1/2 REQUIREMENTS FOR ELECTRIC ELEVATORS



STP-SA-092

COMPARISON REPORT BETWEEN ASME A17.1/B44 AND ISO 8100-1/2 REQUIREMENTS FOR ELECTRIC ELEVATORS

Prepared by:

Barry Blackaby
Bruce Horne
Earl Baker
Michael Morand
Scott Boucher
Louis Bialy
David McColl
Jim Filippone
Sam Hamze
Henry E Peelle III

ASME STANDARDS TECHNOLOGY, LLC

Date of Issuance: April 30, 2021

This publication was prepared by ASME Standards Technology, LLC ("ASME ST-LLC") and sponsored by The American Society of Mechanical Engineers ("ASME").

ASME Standards Technology, LLC
Two Park Avenue, New York, NY 10016-5990

ISBN No. 978-0-7918-7452-3

TABLE OF CONTENTS

FOREWORD

This Standard Technology Publication (STP) provides a comparison between requirements in ASME A17.1/CSA B44 and ISO 8100-1 and ISO 8100-2.

About ASME

Established in 1880, the ASME is a professional not-for-profit organization with more than 100,000 members and volunteers promoting the art, science and practice of mechanical and multidisciplinary engineering and allied sciences. ASME develops codes and standards that enhance public safety, and provides lifelong learning and technical exchange opportunities benefiting the engineering and technology community. Visit https://www.asme.org/ for more information.

ASME ST-LLC is a not-for-profit Limited Liability Company, with ASME as the sole member, formed in 2004 to carry out work related to new and developing technology. ASME ST-LLC's mission includes meeting the needs of industry and government by providing new standards-related products and services, which advance the application of emerging and newly commercialized science and technology, and providing the research and technology development needed to establish and maintain the technical relevance of codes and standards. Visit http://asmestllc.org/ for more information.

PREFACE

General

This STP-SA-092 is one of several such STP documents published by ASME ST-LLC.

STP-SA-092 may be used as a guide in identifying specific Clauses in ISO 8100-1 and ISO 8100-2 that could be considered in addition to or in place of requirements found in A17.1/B44, with the goal of achieving equivalency with the requirements of ISO 8100-1 and ISO 8100-2 where the scopes coincide. This would be particularly useful for electric elevator equipment providers that supply equipment that is conformant to A17.1/B44 who wish to review differences and deploy such equipment in areas that enforce ISO 8100-1 and ISO 8100-2 Standards.

Form and Arrangement

This report is advisory in nature. The Foreword and Preface provide background information to assist the user. The main technical content appears in Table 1, Table 2, Table 3 and Table 4.

Introduction

STP-SA-092 identifies Clause numbers from ISO 8100-1 and ISO 8100-2 for requirements to be used in addition to or in place of specific requirements in A17.1/B44. The content of the specific requirements is published in ISO 8100-1 and ISO 8100-2. STP-SA-092 is not a substitute for ISO 8100-1 and ISO 8100-2 and it does not evaluate or interpret requirements of those Standards. It is the responsibility of the user of STP-SA-092 to comply with the actual requirements in force in their particular jurisdictions.

Requirements for equipment not within the scope of A17.1/B44 and ISO 8100-1 and ISO 8100-2 are not addressed in STP-SA-092.

As a further clarification, it is emphasized that although differences exist in the various Standards, it does not imply that any Standard is superior to another Standard covering the same scope.

It should also be recognized that there are certain differences in approach pertaining to the requirements of A17.1/B44 and ISO 8100-1. The former lays out a set of minimum safety requirements and provides many specific parameters such as factors of safety, material properties, etc. The latter also provides specific parameters for many safety-related functions. There is, however, an underlying set of assumptions in ISO 8100-1 Clause 0.4 that applicable risks have been considered for each component that may be incorporated in a complete elevator.

It should be noted that in Table 1 and Table 2 of STP-SA-092, in some cases ISO 8100-1 Clause 0.4.3a) has been referenced in Columns 3 and 4, where no specific parameters have been identified. The purpose of this reference in Table 1 is to highlight that it is assumed that applicable risks have been considered and usual engineering practice has been applied. Where no specific parameter has been identified in Table 1 and Table 2 Column 3 (i.e. “None” is indicated), the assumptions that applicable risks have been addressed also applies.

1 SCOPE

The Scope of STP-SA-092 is limited to electric elevators within the scope of ISO 8100-1 and ISO 8100-2. Equipment within the scope of A17.1/B44 that is not within the scope of ISO 8100-1 and ISO 8100-2 is not addressed by STP-SA-092.