Special-purpose Rotating Equipment Repairs

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NOTE A bullet (•) at the beginning of a paragraph indicates that either a decision is required or further information is to be provided by the owner. This information should be stated in the quotation request or in the order.

Suggested revisions are invited and should be submitted to the Standards Department, API, 200 Massachusetts Avenue, NW, Suite 1100, Washington, DC 20001, standards@api.org.

CONTENTS

Chapter 0—Rotors and Stationary Components

Contents

Figures

Tables

1 Scope and General Recommendations

1.1 Scope

This recommended practice covers the recommendations for the inspection and repair of special purpose rotating equipment assemblies and components (rotors, bearings, couplings and stationary components) used in petroleum, chemical, and gas industry services.

This document does not cover the removal or reinstallation of the assemblies of the equipment.

This recommended practice is separated into chapters that provide recommendations to specific equipment.

— Chapter 0 provides an overview of the inspections and repairs for special purpose rotating equipment assemblies and components.

— Chapter 1 provides common information that should be used for rotor assemblies identified in Chapters 2 through 7.

— Chapters 2 through 7 should be used separately for the rotors for the specific equipment identified in Chapters 2 through 7 and in conjunction with Chapters 0 and 1.

— Chapter 8 provides recommendations for stationary component inspections and repairs.

This document covers equipment manufactured to the requirements of API 612 *Special Purpose Steam Turbines*, API 613 *Special Purpose Gears*, API 617 *Axial and Centrifugal Compressors and Expander-Compressors*, API 619 *Rotary-Type Positive Displacement Compressors*, API 671 *Special Purpose Couplings*, and *Hot Gas Expanders used in FCCU Power Recovery and Nitric Acid Services*.

1.2 General Recommendations

1.2.1 The basis of repair recommendations should be to produce safe and reliable components or equipment while:

a) returning dimensions required for spare parts interchangeability to the latest design fits and clearances;

b) maintaining interchangeability with other units;

c) using existing spare parts;

d) eliminating errors in manufacturing future spare parts that could be caused by undocumented dimensional changes; and

e) maintaining its capabilities.

NOTE The latest design fits and clearances may not be as originally designed by the original equipment manufacturer (OEM), since rerates and/or upgrades may have been incorporated into the machine design.