



<b>AEROSPACE MATERIAL SPECIFICATION</b>	<b>AMS2453™</b>	<b>REV. A</b>
	Issued 2010-08 Reaffirmed 2015-11 Revised 2022-09	
Superseding AMS2453		
Low Stress Grinding of Steel Parts Heat Treated to 180 ksi or Over, and Low Stress Grinding of Chrome Plating Applied to Steel Parts Heat Treated to 180 ksi or Over		

## RATIONALE

AMS2453A is the result of the need to clarify etch inspection (3.3.6) requirements within the document. Formatting updates have also been performed.

### 1. SCOPE

#### 1.1 Purpose

The purpose of this specification is to establish requirements of a grinding method and to provide grinding parameters that will eliminate or minimize overheating, cracking, high residual tensile stresses, and/or other metallurgical changes that decrease structural integrity of steel parts or chrome plated steel parts (see 8.2). This standard establishes requirements for low stress grinding of martensitic high strength steel heat-treated to 180 ksi (1241 MPa) minimum ultimate tensile strength (UTS) and above, and requirements for low stress grinding of chromium plating applied to such high strength steel.

#### 1.2 Application

This process has been used typically to grind chrome plating on high strength steel and high strength steel parts heat treated to 180 ksi (1241 MPa) ultimate tensile strength and above for applications requiring wear, heat, and corrosion resistance or dimensional restoration, such as aircraft landing gear and hydraulic actuator components. However, usage is not limited to such applications (see 8.3).

#### 1.3 Safety - Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards that may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

### 2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been cancelled and no superseding document has been specified, the last published issue of that document shall apply.

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