

# BAC5613

REVISION  
V  
1/20/2020

HEAT TREATMENT OF TITANIUM AND  
TITANIUM ALLOYS



THIS SPECIFICATION ESTABLISHES THE REQUIREMENTS FOR THE HEAT TREATMENT OF TITANIUM AND TITANIUM ALLOYS. REQUIREMENTS FOR ANNEALING, SOLUTION TREATING, AGING, STRESS RELIEVING, AND BETA ANNEALING ARE INCLUDED ALONG WITH THERMAL LIMITATIONS FOR ELEVATED TEMPERATURE FORMING AND STRAIGHTENING. ALSO INCLUDED ARE REQUIREMENTS FOR REMOVAL OF CONTAMINATED SURFACE METAL AFTER THERMAL TREATMENT AND REQUIREMENTS FOR EQUIPMENT USED FOR THERMAL TREATMENT.

<u>BAC 5613 DEPARTURES</u>	<u>EFF DATE</u>	<u>SUBCONTRACTOR(S) AFFECTED</u>	<u>ON MODELS</u>	<u>MFG DEPTS OF DIV BELOW AFFECTED</u>	<u>REASON</u>
<b>BAC5613 QPL REV V</b>	5/31/2019				QPL
<b>DCNPSO_010929_01</b>	5/31/2019	N/A	N/A	N/A	THIS REVISION APPLIES SIMPLIFIED TECHNICAL ENGLISH (STE) IN ACCORDANCE WITH THE SPECIFICATION IMPROVEMENT PROJECT (SIP) TO COMPLY WITH THE FAA SETTLEMENT AGREEMENT TO IMPROVE THE QUALITY OF OUR STANDARDS. ONLY TECHNICAL CHANGES MADE TO RESTORE ERRORS IN REV. T TO REV. U REVISION
<b>6-57</b>	11/19/2002	ALL	ALL COMMERCIAL AIRPLANES AND DERIVATIVES THEREOF	ALL BCAG AND SUPPORTING	ALLOW NO MATERIAL REMOVAL WHEN NO SURFACE CONTAMINATION IS MEASURED AT 1.5 TIMES THE EXPOSURE
<b>6-58</b>	1/16/2006	ALL	ALL COMMERCIAL AIRPLANES AND DERIVATIVES THEREOF	ALL BCAG AND SUPPORTING	TO ADD STRESS RELIEF REQUIREMENTS FOR TI5553 BASCA-160.
<b>6-59</b>	6/19/2006	ALL	ALL COMMERCIAL AIRPLANES AND DERIVATIVES THEREOF	ALL BCAG AND SUPPORTING	TO INCLUDE 1) BAC5750 IN 8.1.1 AND 2) TI-5AL-5V-5MO-3CR BASCA-160 HEAT TREATMENT IN TABLE.
<b>8-6</b>	8/28/2015	ALL	ALL BDS PHILADELPHIA	ALL BDS PHILADELPHIA AND SUPPORTING	TO REVISE THE METAL REMOVAL REQUIREMENTS AFTER HOT FORMING IN ACCORDANCE WITH BAC 5300-2.
<b>9-15</b>	11/3/1997	ALL EXCEPT SCHLOSSER	494 (F-22)	BOEING DEFENSE AND SPACE GROUP	ALLOW COATINGS TO BE OMITTED FOR HOT BRAKE FORMING/STRESS RELIEF BELOW 145 F.
<b>9-29</b>	5/8/2009	BARNES AEROSPACE	494 (F-22)	NONE	TO REPLACE PSD 9-17 TO BRING SECTION REFERENCES UP TO DATE AND REPLACE KSALT TEST WITH K1SCC TEST.
<b>9-31</b>	3/11/2008	ALL	ALL COMMERCIAL AIRPLANES AND DERIVATIVES THEREOF	ALL BCAG AND SUPPORTING	TO UPDATE PROCESS FOR BASCA TI 5AL-5V-5MO-3CR. ADD COVERAGE FOR SOLUTION TREAT AND AGING TI-5AL-5V-5MO-3CR. ADD A RANGE FOR AGING TEMPERATURE OF TI-15V-3CR-3AL-3SN. REVISE SOLUTION TREATMENT OF TI-6AL-2SN-4ZR-
<b>9-32</b>	10/30/2013	ALL	ALL COMMERCIAL AIRPLANES AND DERIVATIVES THEREOF	ALL BCAG AND SUPPORTING	ADD OPTIONAL COOLING RATE TO TI 6AL-4V MILL ANNEALED HEAT TREATMENT IN TABLES II, III AND IV.