ALERT SERVICE BULLETIN

Rolls-Royce®

ENGINE, TURBINE ASSEMBLY - STEADY-STATE OPERATION AVOIDANCE LIMIT

1. PLANNING INFORMATION

A. Effectivity

(1) Engines

All Rolls-Royce Model 250®-C300/A1 and 250-C300/B1 engines are affected by this bulletin.

B. Reason

This Alert Service Bulletin (SB) has been released by Rolls-Royce to heighten the awareness to operations in the Power Turbine speed avoidance range (keep out zone) and time restricted overspeed zones to minimize the possibility of power turbine failure.

C. Description

This Alert Service Bulletin (SB) requires Operators to avoid engine N2 steady-state operation in the speed avoidance range as specified in the following wording and Figures. Transition through the speed range is to be accomplished as expediently as possible. This service bulletin is associated with a pending FAA Airworthiness Directive (AD).

D. Approval

Technical aspects are FAA approved.

E. Compliance

Compliance Code 1: To be complied with immediately.

F. Interchangeability - Not Affected

G. Material Availability

PART NUMBER	QTY/ENGINE	NAME	MODEL
RR30000236	1	Third-stage, Turbine Wheel	250-C300/A1 250-C300/B1
RR30000240	1	Fourth-stage, Turbine Wheel	250-C300/A1 250-C300/B1

H. Tooling - Not Applicable

I. Weight and Balance - Not Affected

J. Electrical Load Data - Not Affected

K. References

(1) RR300 Operation and Maintenance Manual, CSP 21009 (OMM).

(2) RR300 Line Illustrated Parts Catalog, CSP 23004 (LIPC).

(3) RR300 Engine Illustrated Parts Catalog, CSP 23006 (EIPC).

L. Other Publications Affected – None

M. Prerequisites – None

2. ACCOMPLISHMENT INSTRUCTIONS

A. Ground Idle (GI) to fly rotor run–up Keep Out Zone: 71% to 88% Np.

(1) Transient operation only is permitted in this zone for rotor run–up; time in the zone must be minimized as far as possible. A target torque of 40–45% must be used for rotor acceleration between Idle (GI) and Fly.

NOTE: Transient Operation is defined as no dwell at an NP speed of more than 1 second duration.

B. Ground Idle (GI) to fly rotor run–up Keep Out Zone: 71% to 88% Np.

(1) In autorotation, with Np split from Nr, unrestricted operation below 88% Np is permitted.

(2) Transient operation in the Keep Out Zone during recovery from autorotation is permitted.

NOTE: Transient Operation is defined as no dwell at an NP speed of more than 1 second duration.

(3) If during practice autorotation with throttle in the ground idle position and Np does not split from Nr by 105% Nr, abort the practice autorotation. Consult the airframe manuals for corrective action.

C. Restricted Np Speed Zones

Ref. FIG. 1

Ref. FIG. 2

(1) Transient operation only is permitted in the keep out zone 71% to 88% Np. Any other operation in the band is prohibited, in particular continuous operations (any dwell of more than 1 second) must be avoided.

NOTE: Transient Operation is defined as no dwell at an NP speed of more than 1 second duration.

(2) Each event between 105% and 110% N2 that meets the exceedance criteria must be logged in the appropriate section of the Engine Log Book. Excursions are only recorded in the EMU when the duration of any one event is more than 15 seconds. The EMU light will illuminate after 15 seconds above 105% N2.

(3) Record the maximum speed exceedance value and the date in the turbine component record card.

D. Upon completion of maintenance, record compliance to SB RR300–A–72–018 in the Engine Log Book.

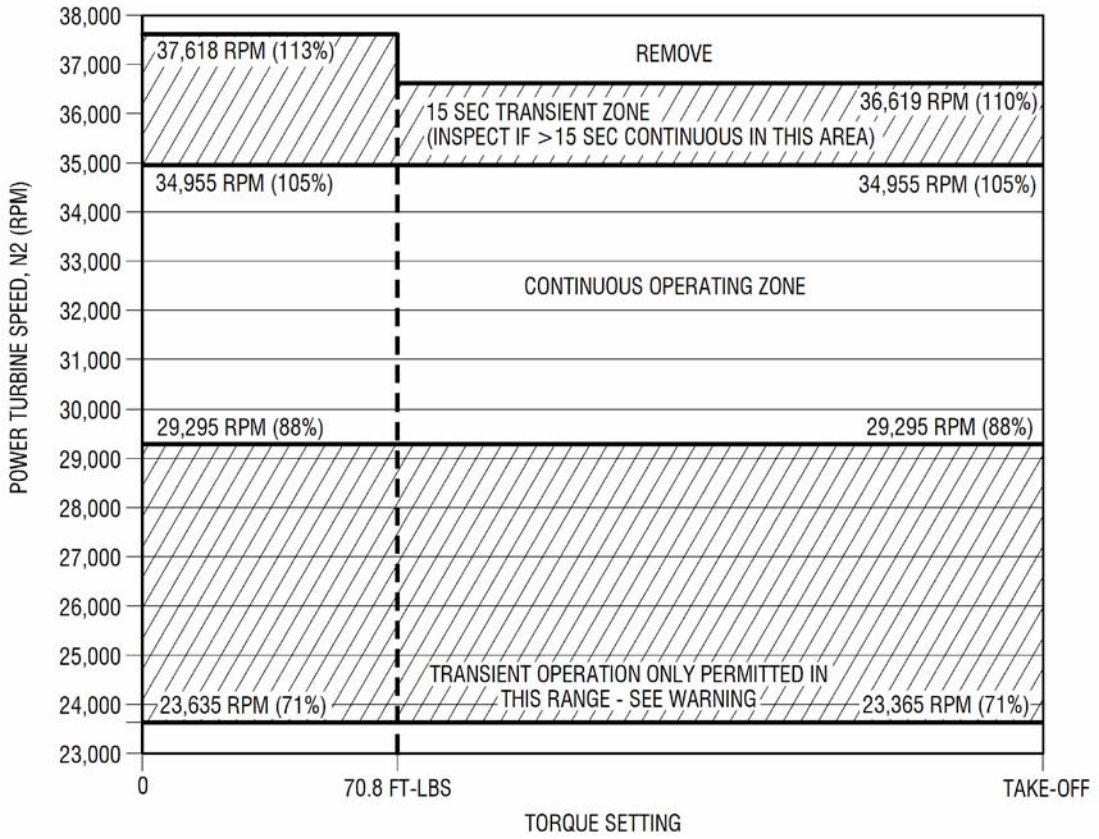
3. MATERIAL INFORMATION – Not Applicable

CUSTOMER SUPPORT

ROLLS-ROYCE

March 09, 2015

SB RR300–A–72–018



Torque Setting Limitation
FIG. 1

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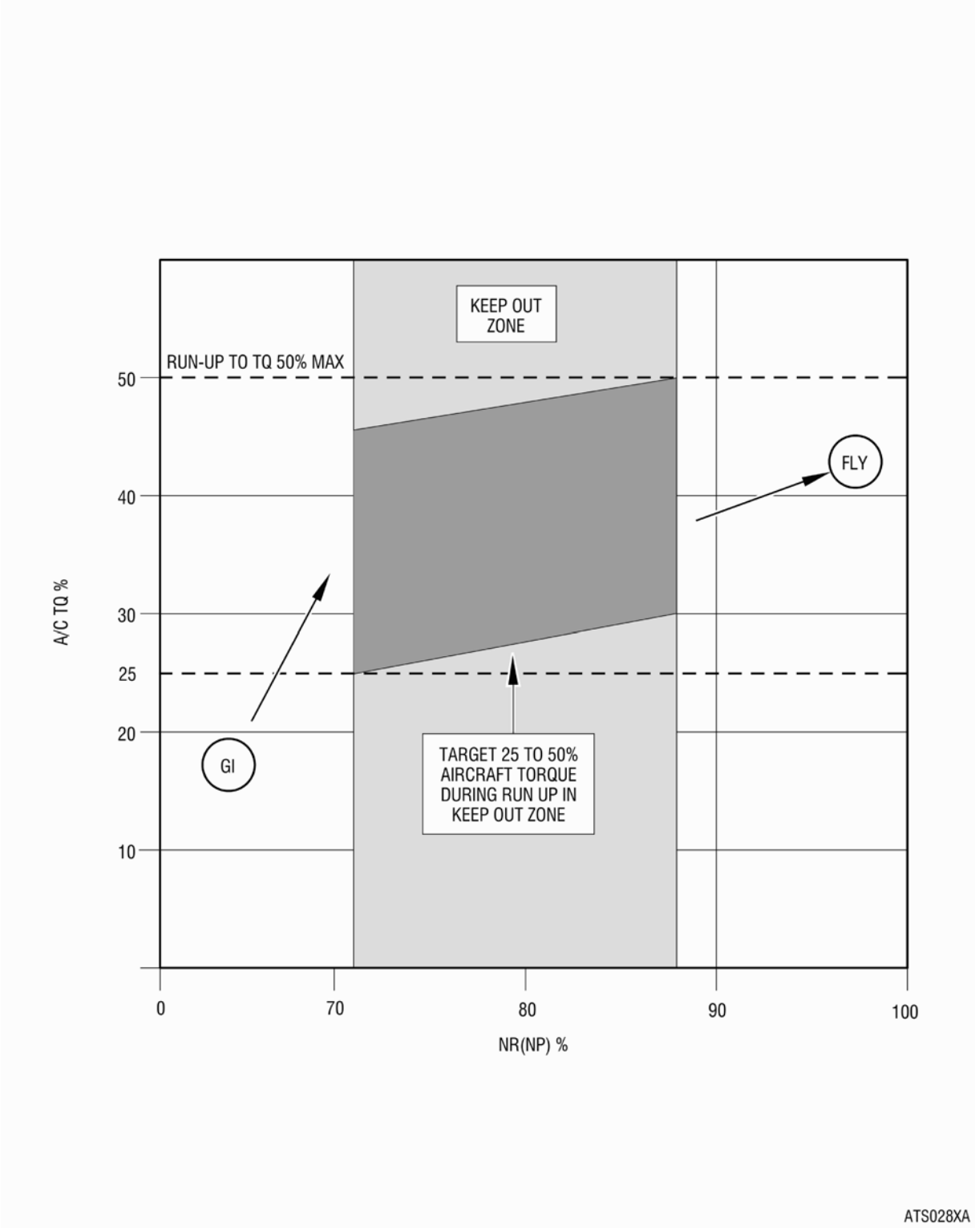

NR(NP) % limitations
FIG. 2