

Evaluation of an Active Clearance Control System Concept



Evaluation of an Active
Clearance Control System
Concept

NASA Technical Reports Server
(NTRS), et al., Bruce M. Steinertz

Filesize: 9.73 MB

Reviews

Undoubtedly, this is the greatest job by any author. It is actually filled with wisdom and knowledge I am quickly could get a pleasure of reading a written book.
(Kade Ankunding)

EVALUATION OF AN ACTIVE CLEARANCE CONTROL SYSTEM CONCEPT

[DOWNLOAD](#)

BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 24 pages. Dimensions: 9.7in. x 7.4in. x 0.1in. Reducing blade tip clearances through active tip clearance control in the high pressure turbine can lead to significant reductions in emissions and specific fuel consumption as well as dramatic improvements in operating efficiency and increased service life. Current engines employ scheduled cooling of the outer case flanges to reduce high pressure turbine tip clearances during cruise conditions. These systems have relatively slow response and do not use clearance measurement, thereby forcing cold build clearances to set the minimum clearances at extreme operating conditions (e. g. , takeoff, reburst) and not allowing cruise clearances to be minimized due to the possibility of throttle transients (e. g. , step change in altitude). In an effort to improve upon current thermal methods, a first generation mechanically-actuated active clearance control (ACC) system has been designed and fabricated. The system utilizes independent actuators, a segmented shroud structure, and clearance measurement feedback to provide fast and precise active clearance control throughout engine operation. Ambient temperature performance tests of this first generation ACC system assessed individual seal component leakage rates and both static and dynamic overall system leakage rates. The ability of the nine electric stepper motors to control the position of the seal carriers in both open- and closed-loop control modes for single and multiple cycles was investigated. The ability of the system to follow simulated engine clearance transients in closed-loop mode showed the system was able to track clearances to within a tight tolerance. This item ships from La Vergne, TN. Paperback.

[Read Evaluation of an Active Clearance Control System Concept Online](#)[Download PDF Evaluation of an Active Clearance Control System Concept](#)

Related PDFs



Animalogy: Animal Analogies

Sylvan Dell Publishing. Paperback. Book Condition: New. Cathy Morrison (illustrator). Paperback. 32 pages. Dimensions: 9.8in. x 8.4in. x 0.4in. Compare and contrast different animals through predictable, rhyming analogies. Find the similarities between even the most incompatible...

[Download Document »](#)



The Whale Tells His Side of the Story Hey God, I've Got Some Guy Named Jonah in My Stomach and I Think I'm Gonna Throw Up

B&H Kids. Hardcover. Book Condition: New. Cory Jones (illustrator). Hardcover. 32 pages. Dimensions: 9.1in. x 7.2in. x 0.3in. Oh sure, well all heard the story of Jonah and the Whale a hundred times. But have we...

[Download Document »](#)



God Loves You. Chester Blue

Henry and George Press. Paperback. Book Condition: New. Ursula Andrejczuk (illustrator). Paperback. 140 pages. Dimensions: 8.0in. x 5.2in. x 0.3in. BEAUTIFUL NEW ILLUSTRATIONS BRING THE STORY TO LIFE! A charming book about a mysterious bear that shows...

[Download Document »](#)



Good Night, Zombie Scary Tales

Feiwel & Friends. Paperback. Book Condition: New. Iacopo Bruno (illustrator). Paperback. 112 pages. Dimensions: 8.2in. x 5.4in. x 0.2in. Welcome. Have a seat. Ignore the shambling undead outside. Let us tell you a story. But be...

[Download Document »](#)



Kindle Fire Tips And Tricks How To Unlock The True Power Inside Your Kindle Fire

CreateSpace Independent Publishing Platform. Paperback. Book Condition: New. This item is printed on demand. Paperback. 52 pages. Dimensions: 9.0in. x 6.0in. x 0.1in. Still finding it getting your way around your Kindle Fire? Wish you had...

[Download Document »](#)



Tiger Tales DK Readers, Level 3 Reading Alone

DK CHILDREN. Paperback. Book Condition: New. Paperback. 48 pages. Dimensions: 8.7in. x 5.7in. x 0.2in. Hunter or hunted How much longer will these magnificent beasts prowl the plant These stories will touch your heart. The 48-page

[Save PDF »](#)



Coronation Mass, K. 317 Vocal Score Latin Edition

Petrucci Library Press. Paperback. Book Condition: New. Paperback. 56 pages. Dimensions: 9.6in. x 6.7in. x 0.1in. Otto Taubmanns classic vocal score of Mozarts Coronation Mass was first issued in the early 20th century and has become

[Save PDF »](#)



Scala in Depth

Manning Publications. Paperback. Book Condition: New. Paperback. 304 pages. Dimensions: 9.2in. x 7.3in. x 0.8in. Summary Scala in Depth is a unique new book designed to help you integrate Scala effectively into your development process. By

[Save PDF »](#)



At-Home Tutor Language, Grade 2

Evan-Moor Educational Publishers. Paperback. Book Condition: New. Paperback. 96 pages. Dimensions: 10.7in. x 8.2in. x 0.3in. Developed by teachers, this curriculum-based series provides practice of important math and reading skills-ideal for providing additional practice at home.

[Save PDF »](#)



Multiple Streams of Internet Income

Wiley. Hardcover. Book Condition: New. Hardcover. 279 pages. Dimensions: 9.3in. x 6.2in. x 1.2in. Praise for MULTIPLE STREAMS OF INTERNET INCOMEIf ever the world needed some help to succeed on the Internet, this is the moment.

[Save PDF »](#)