

United States of America  
Department of Transportation — Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* ST00345LA

*This certificate, issued to* CALIFORNIA PRECISION HYDRAULICS INCORPORATED  
5330 Derry Avenue, Suite B  
Agoura Hills, CA 91301

*certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 25 of the Federal Aviation Regulations.*

*Original Product — Type Certificate Number:*  
*Make:* A20WE  
*Model:* Boeing  
747-400 series

*Description of Type Design Change:* Installation of California Precision Hydraulics Piston and Shoe Assembly, Part No. 700017 as a replacement part for Sundstrand Part Nos. 733754G, 733754AG, SD1385G, and SD1385AG as used in Sundstrand Part Nos. 739515, 745329, and 747194 Integrated Drive Generators (IDG). For further description see Page 3.

*Limitations and Conditions:* The approval of this change in type design applies to the above noted IDG's installed on the Boeing 747-400 series. This approval should not be extended to aircraft of this model that incorporate any other previously approved modifications unless it is determined that the interrelationship between this change and any other modification will introduce no adverse effect on the airworthiness of these aircraft.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* October 8, 1996

*Date issued:*

*Date of issuance:* February 12, 1997

*Date amended:*



*By direction of the Administrator*  
*Chin W. Wong*  
ACT. Manager, Propulsion Branch  
Los Angeles Aircraft Certification Office

(Title)

*Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.*

*This certificate may be transferred in accordance with FAR 21.47.*

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**Supplemental Type Certificate**  
(Continuation Sheet)

Description of Type Design Change: *Number* ST00345LA

Part No. 700017 is to be in accordance with California Precision Hydraulics Drawing 700017-A, -B, -F, -D, -E, -G, -H, -J, -L, -M, -N, -P, -T, -U, -V, -W, -SDG, and -SDH, Revision "C" dated October 4, 1996, or later FAA approved revisions.

The above drawing consists of:

700017-63 Shoe, Revision "A" dated July 6, 1994, or later FAA approved revisions  
700017-62A, -62B, -62D, -62E, -62F, -62G, -62H, -62J, -62L, -62M, -62N, -62P, -62T, -62U, -62V, -62W, and -62SDH Piston, Revision "NC" dated May 13, 1994, or later FAA approved revisions

The piston consists of:

700017-62 ( )  
700017-62-1 Sleeve, Revision "N/C" dated July 14, 1994, or later FAA approved revisions  
700017-62-2 Core, Revision "N/C" dated July 14, 1994, or later FAA approved revisions

NOTE: Letter codes for 700017-62 and 700017 denote piston diameter variations which are used on installation to obtain acceptable piston to cylinder bore clearances.

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