ENGINE - HP COMPRESSOR 9-12 DRUM - TO ANNOUNCE A REDUCTION IN CYCLIC LIFE DEPENDENT ON THRUST RATING - (NON-MOD SERVICE BULLETIN) - CATEGORY CODE 3 - NON-MODIFICATION SERVICE BULLETIN ENG-72-0293

1. Planning Information

A. Effectivity

(1) Aircraft
- (a) Airbus A319
- (b) Airbus A320
- (c) Airbus A321
- (d) Boeing - Douglas Product Division MD-90

(2) Engines
- (a) V2522-A5 Engines prior to V10253
- (b) V2524-A5 Engines prior to V10253
- (c) V2527-A5 Engines prior to V10253
- (d) V2527E-A5 Engines prior to V10253
- (e) V2530-A5 Engines prior to V10253
- (f) V2533-A5 Engines prior to V10253
- (g) V2525-D5 Engines prior to V20142
- (h) V2528-D5 Engines prior to V20142

B. Concurrent Requirements

None

C. Reason

(1) Condition

Stress analysis of the HP Compressor 9-12 Drum (Part No. 6A4156) during the certification of the V2533-A5 engine model has shown that high stresses can occur on the stage 12 disc. This unit is the same on all -A5 and -D5 engine models.

As a result of these high stresses, the cyclic life of the existing drum (Part No. 6A4156) must be changed dependent on engine model and thrust rating. The revised cyclic lives given in this Service Bulletin are finite (Refer to table 1)

A revised HP Compressor 9-12 Drum, (Part No. 6A6546) has been designed to give a cyclic life of 20,000 cycles for all engine models and ratings. The revised drum is introduced by Service Bulletin V2500-ENG-72-0273.

(2) Background

See (1) condition

(3) Objective

The purpose of this Non-Modification Service Bulletin is to introduce the changed finite cyclic lives for each engine model and rating.

(4) Substantiation

The cyclic lives given in this Non-Modification Service Bulletin have been substantiated by Component Rig Testing and Stress Analysis.

(5) Effect of Bulletin on Workshop Brochures

Removal/Installation	Not affected
Disassembly/assembly	Not affected
Cleaning	Not affected
Inspection/Check	Not affected
Repair	Not affected
Testing	Not affected

(6) Supplemental Information

None

D. Description

(1) The finite cyclic life for Part Number 6A4156 for each engine model and rating is given in Table 1. To assist operators of V2533-A5 engines, the individual engine serial numbers and component serial numbers are identified.

(2) The Time Limits Manual 5-10-01 will be revised.

(3) The interchangeability of this component across ratings is permitted but it should be noted that if any of the subject components are installed in engines operated at a mix of thrust ratings, the component lfe will be that of the highest rating employed. Use of the component at a higher thrust rating for even a single flight will invoke the life applicable for the higher thrust rating.

Also, if any of the subject components are transferred to other engines operated at different thrust ratings, the component life will be that of the highest rating employed.

E. Approval

The Technical Data in this Non-Modification Service Bulletin obey the applicable Federal Aviation Regulations and are FAA Approved for the engine models listed.

F. Compliance

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5

Category 3

Pre SB-V2500-ENG-72-0273 HP Compressor 9-12 Drums (Part No. 6A4156) must be replaced at or before the cyclic life for the applicable engine model and thrust rating shown in Table 1.

G. Manpower

Not applicable

H. Material - Price and Availability

Not applicable

I. Tooling

Not applicable

J. Weight and Balance

Not applicable

K. Electrical Load Data

Not applicable

L. References

(1) Internal Reference No.

97VR019

(2) Other References

Service Bulletin V2500-ENG-72-0273

M. Other Publications Affected

(1) Time Limits Manual (TLM) Chapter/Section 05-10-01

Model	Engines Affected	HP Comp 9-12 Drum Part No.	Component Serial No.	Revised Finite Life
V2522-A5	Prior to V10253	6A4156	VARIOUS	14300 CYCLES
V2524-A5	Prior to V10253	6A4156	VARIOUS	14300 CYCLES
V2527-A5	Prior to V10253	6A4156	VARIOUS	14300 CYCLES
V2527E-A5	Prior to V10253	6A4156	VARIOUS	12000 CYCLES
V2530-A5	Prior to V10253	6A4156	VARIOUS	12000 CYCLES
V2533-A5	Prior to V10253			
	i.e. V10198	6A4156	RDN62244	8000 CYCLES
	V10199	6A4156	RDN62349	8000 CYCLES
	V10204	6A4156	RDN62354	8000 CYCLES
	V10212	6A4156	RDN62580	8000 CYCLES
	V10213	6A4156	RDN62584	8000 CYCLES
	V10220	6A4156	RDN62853	8000 CYCLES
	V10221	6A4156	RDN61676	8000 CYCLES
	V10224	6A4156	RDN62895	8000 CYCLES
	V10225	6A4156	RDN62890	8000 CYCLES
	V10228	6A4156	RDN62894	8000 CYCLES
	V10229	6A4156	RDN62899	8000 CYCLES
	V10239	6A4156	RDN63022	8000 CYCLES
	V10251	6A4156	RDN63090	8000 CYCLES
	V10252	6A4156	RDN63027	8000 CYCLES
V2525-D5	Prior to V20142	6A4156	VARIOUS	15700 CYCLES
V2528-D5	Prior to V20142	6A4156	VARIOUS	13200 CYCLES

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Table 1

2. Accomplishment Instructions

A. Rework Instructions

None

B. Assembly Instructions

For reference see Service Bulletin V2500-ENG-72-0273

C. Recording Instructions

Refer to Time Limits Manual 05-10-01 for Life Limited Part Monitoring requirements