
SERVICE INFORMATION LETTER NO. SI62-011

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1. To distribute information from Diamond Aircraft Industries Inc. to our customers.
2. To distribute applicable information/documents from our suppliers to our customers with additional information.

NOTE: Typically there is no revision service for Service Information Letter (SIL). Each new information or change will be sent along with a new SIL.

1. TECHNICAL DETAILS

1.1 Aircraft Affected

All DA62 aircraft

1.2 Subject

Parker Hannifin Corporation Product Reference Memo No. PRM107

1.3 Reason

Parker Hannifin has issued a product reference memo identifying the need to carry out NDT inspection on the brake discs when the brake linings are changed. Parker has found that heat checks (cracks) may develop on the wearing surfaces. Service limits for the heat checks are also defined in this memo.

1.4 Information

For detailed technical information refer to Parker Hannifin Corporation Product Service Memo No. PRM107. This memo is attached to this Service Letter.

2. OTHER DETAILS

To obtain satisfactory results, procedures specified in this service information letter must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service information letter. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service information letter if it is not incorporated. If you no longer own the aircraft to which this service information letter applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries Inc. at the address below.

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PRODUCT REFERENCE MEMO

HEAT CHECK SERVICE LIMITS FOR THE 164-25700 BRAKE DISC USED IN THE 40-406C MAIN WHEEL ASSEMBLY

1. PLANNING INFORMATION

A. APPLICABILITY

Diamond model DA-62 aircraft equipped with the Parker 40-406C main wheel assembly and 30-233E brake assembly.

B. REASON

To advise owners/operators of the above aircraft who utilize Parker part number 40-406C main wheel and Parker part number 30-233E brake assemblies on their aircraft that heat checks (cracks) may develop on the wearing surfaces of the 164-25700 brake disc, and to define service life limits for heat checks (cracks).

C. DESCRIPTION

Heat checks are considered to be superficial surface cracks and are not detrimental to the integrity or performance of the braking system.

D. COMPLIANCE

Mandatory.

E. APPROVAL

The design contents of this Product Reference Memo are FAA DER approved.

F. MANPOWER

Not applicable.

G. TOOLING

Not applicable.

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HEAT CHECK SERVICE LIMITS FOR THE 164-25700 BRAKE DISC USED IN THE 40-406C MAIN WHEEL ASSEMBLY

H. WEIGHT AND BALANCE

No change.

I. REFERENCES

Not applicable.

J. OTHER PUBLICATIONS AFFECTED

The information contained in this Product Reference Memo (PRM107) is to be incorporated into the Product Catalog and Maintenance Manual at the next revision of each.

2. ACCOMPLISHMENT INSTRUCTIONS

A. INSTRUCTIONS FOR INSPECTION OF BRAKE DISCS

At each brake lining change, inspect both wearing surfaces of the brake disc for cracks as follows:

- (1) Clean disc wearing surfaces using dry-cleaning solution per P-D-680, Type I, and a soft bristle brush.
- (2) Dry part thoroughly using filtered and dried compressed air.
- (3) Using either fluorescent or dye penetrant, check disc wearing surfaces for cracks. Pay particular attention to the disc wearing surface which faces the wheel assembly.
- (4) Replace brake discs if any one crack has a length greater than 0.600 in (15.24 mm), if the crack depth exceeds 0.210 in (5.33 mm), if more than one crack can be found in any 90° quadrant of the disc, or if more than three (3) cracks can be found in the disc.

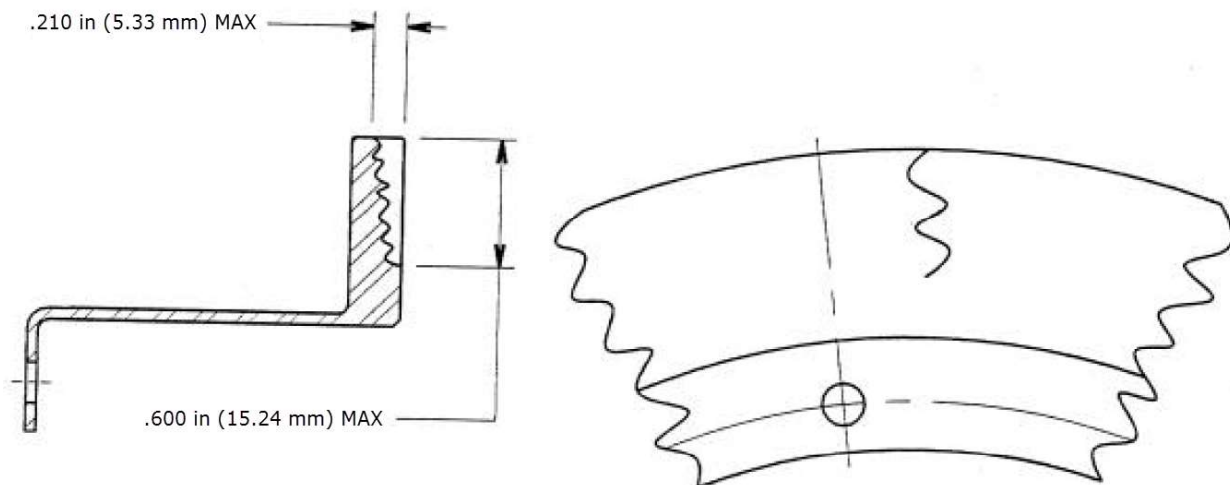


Figure 1 – Reference Views of Crack Limits in Brake Disc Wear Surfaces



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3. MATERIAL INFORMATION

A. MATERIAL REQUIREMENTS

Table 1 – Material Requirements

Type	Penetrant	Developer	Supplier
Fluorescent	Zyglo ZL-16	Zyglo ZP-13 (wet) optional	Magnaflux Corp. Chicago, IL
	Penetrex ZL-2A with emulsifier ZE-4	Penetrex ZP-4 (dry) or ZP-13 optional	
Red Dye	Spot Check	Spot Check	Turco Products Carson, CA Met-L-Chek Santa Monica, CA
	Dy-Chek	Dy-Chek	
	Met-L-Chek	Met-L-Chek	

B. LIST OF COMPONENTS

A soft bristle brush, dry cleaning solution per Federal Specification P-D-680 Type I (stoddard solvent, mineral spirits, white spirits, naphtha) and penetrant (see Table 1 above).

C. PARTS DISPOSITION

Replace brake discs if any one crack has a length greater than 0.600 in (15.24 mm), if the crack depth exceeds 0.210 in (5.33 mm), if more than one crack can be found in any 90° quadrant of the disc, or if more than three (3) cracks can be found in the disc.