

**MINISTÉRIO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO
CENTRO TÉCNICO AEROESPACIAL**

TYPE CERTIFICATE DATA SHEET Nº EH-1999T03

Type Certificate Holder:

McCAULEY PROPELLER SYSTEMS
3535 McCauley Drive
Vandalia Ohio, OH 45377
USA

EH-1999T03

Sheet 01

McCAULEY

1A170

April 1999

Propellers of models described herein conforming with this data sheet, which is part of Type Certificate No. 1999T03, meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Brazilian Aeronautical Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other instructions.

| | |
|-------------------------|---|
| TYPE | Fixed pitch metal |
| ENGINE SHAFT | S.A.E. No. 2 flange modified (See Note 1) |
| HUB MATERIAL | Aluminum alloy |
| BLADE MATERIAL | Aluminum alloy |
| NUMBER OF BLADES | Two |

HUB ELIGIBLE 1A170

| Model (See Note 2) | Takeoff & Max. Power | | Diameter Limits | Standard Pitch | Hub Drilling | | | Hub Dimension | | Weight (Max. Diam) | |
|------------------------|----------------------|------|--------------------|-------------------|--------------|----------------|---------------------|---------------|-----------|-----------------------|-------|
| | hp | rpm | | | No. Holes | Diam. Holes | Dia. Bolt Circle | Diam. | Thickness | kg | lb |
| | | | | | | | | | | | |
| <u>Hub Model 1A170</u> | | | | | | | | | | | |
| 1A170/JHA | 180 | 2700 | 78-70 | 80-40 | 6 | 33/64 | 4-3/4 | 6-1/4 | 4-15/16 | 18.78 | 40.75 |

CERTIFICATION BASIS Brazilian Type Certificate Nr.1999T03 based on the RBHA 35 (Brazilian Requirements for Aeronautical Certification), which endorses the FAA 35 with Amendments 35-1 through 35-6 thereto, effective august 18, 1989.

TYPE CERTIFICATION

| | | |
|-----------|----------------------------|----------------------------|
| 1A170/JHA | Application 05 May 1998 | Issued TC 12 April 1999 |
|-----------|----------------------------|----------------------------|

PRODUCTION BASIS Production Certificate No. 3.

IMPORT REQUIREMENTS Each propeller imported separately and/or spare parts must be accompanied by an export airworthiness approval issued by the primary authority, attesting that the particular propeller and/or parts were submitted to the governmental quality control before delivery and are in conformity with the CTA approved type design.

NOTES**NOTE 1** Installation.

This propeller is for installation on flanged propeller shaft end (See Note 2). The front-plate supplied by the engine manufacturer is not to be used. Installation is to be made with special alloy steel bolts which are either furnished or specified by the propeller manufacturer.

Propeller model 1A1170/JHA is for use on modified SAE #2 flanged propeller shaft with McCauley P/N C-5464 spacer and must be installed in accordance with McCauley Drawing C-5465.

NOTE 2 Propeller Model Designation.

The propeller model designation consists of a series of numbers suffixed to the basic design number to indicate propeller diameter and geometric pitch at the 0.75 radius.

1A170E / DF 76 48

1A170E/ Basic design number: "E" when present is a minor change letter that indicates elliptical tips and does not affect interchangeability or eligibility.

DF CFA denotes SAE No. 2 flange modified (six 1/2" mounting bolts); 4" integral doweled spacer

DF denotes SAE No. 3 flange; elliptical tips

LM denotes SAE No. 3 flange; square tips

L denotes SAE No. 3 flange with 2.188" diameter pilot; elliptical tips

LL denotes SAE No. 3 flange with 2.188" diameter pilot; square tips

GM denotes SAE No. 2 flange; square tips

SFA denotes SAE No. 2 flange modified (six 1/2" mounting bolts)

SFC denotes special flange 4" B.C.; square tips

FC denotes special flange 4" B.C.; square tips

GMA denotes SAE No. 2 flange with 2" integral doweled spacer; square tips

MFC denotes special flange 4" B.C.; square tips

ATM denotes SAE No. 2 flange modified (six 7/16" mounting bolts); 3.5" integral doweled spacer; square tips

EFA denotes SAE No. 2 flange modified (six 7/16" mounting bolts); 1.5" integral doweled spacer; square tips

ETM denotes SAE No. 2 flange with 3.5" integral doweled spacer; square tips

FFA denotes SAE No. 2 flange modified (six 1/2" mounting bolts); 2.65" integral doweled spacer; square tips.

76 Propeller diameter in inches

48 Inches pitch at 0.75 radius

NOTE 3 Not applicable.

NOTE 4 Not applicable.

NOTE 5 Not applicable.

NOTE 6 Interchangeable Propellers.

Propellers of the same basic design number with square or elliptical tips are sufficiently similar aerodynamically and vibrationwise to permit interchangeability in the same diameter and static rpm without a flight test.

NOTE 7 Accessories.

Not applicable.

NOTE 8 Not applicable.

NOTE 9 Special Notes.

Aircraft installation must be approved as part of the aircraft type certificate upon compliance with the applicable aircraft airworthiness requirements.

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