



U.S. Department
of Transportation
**Federal Aviation
Administration**

Small Airplane Directorate
Kansas City Manufacturing
Inspection District Office
(MIDO)
901 Locust Street, Room 376
Kansas City, MO 64106-2641
Tel: 816-329-4190 Fax: 816-329-
4195

March 23, 2011

Project No. PQ3732CE

Mr. Dana Yarnell
Quality Manager
McFarlane Aviation, Inc.
696 E. 1700 Road
Baldwin City, KS 66006

FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

In accordance with the provisions of Title 14, Code of Federal Regulations (14 CFR), Part 21, Certification Procedures for Products and Parts, subpart K, the FAA has found that the design data, based on Test and Computation submitted by McFarlane Aviation, Inc., with your letter dated December 23, 2010 meet the airworthiness requirements of the regulations applicable to the products on which the parts are to be installed. Additionally, the FAA has determined that McFarlane Aviation, Inc., has established the fabrication inspection system required by § 21.303(h) at 696 E. 1700 Road Baldwin City, KS 66006. Accordingly, Parts Manufacturer Approval (PMA) is hereby granted for production of the replacement parts listed in the enclosed **Supplement No.51.**

You are reminded that the provisions of 14 CFR, Parts 21 and 45, noted in our PMA Letter of Approval dated September 3, 1993, also applies to the enclosed PMA Listing-Supplement **No.51.**

The enclosed supplement should be retained with the original PMA letter as evidence of approval to produce the parts concerned.

Sincerely,

Edward J. Mehrhoff,
Aviation Safety Inspector
Kansas City, Manufacturing Inspection
District Office

Enclosure

FEDERAL AVIATION ADMINISTRATION – PARTS MANUFACTURER APPROVAL

McFarlane Aviation Inc.
696 E 1700 Road
Baldwin City, KS 66006

PMA No: PQ3732CE

Supplement No.51

Date: March 23, 2011

<u>Part Name</u>	<u>Part Number</u>	<u>Approved Replacement for Part Number</u>	<u>Approval Basis and Approved Design Data</u>	<u>Make Eligibility:</u>	<u>Model Eligibility:</u>
ROD END	MCS1104-3	S1104-3	Test and Computation per 14 CFR § 21.303. <u>Drawing:</u> List: 6446. <u>Rev:</u> Original <u>Date:</u> 4/8/2010 or later FAA approved revisions.	CESSNA	120 s/n all; 140 s/n all; 140A s/n all; 150 s/n all; 150A s/n all; 150B s/n all; 150C s/n all; 150D s/n all; 150E s/n all; 150F s/n all; 150G s/n all; 150H s/n all; 150J s/n all; 150K s/n all; 150L s/n all; 150M s/n all; A150K s/n all; A150L s/n all; A150M s/n all; F150F s/n all; F150G s/n all; F150H s/n all; F150J s/n all; F150K s/n all; F150L s/n all; F150M s/n all; FA150K s/n all; FA150L (1971) s/n all; FA150L (with FKA150-2311 and FKA150-2316) (1972-1974) s/n all; FA150M (with FKA150-2311 and FKA150-2316) s/n all; FRA150L s/n all; FRA150M s/n all; 152 s/n all; A152 s/n all; F152 s/n all; FA152 s/n all; 170A s/n all; 170B s/n all; 172 s/n all; 172A s/n all; 172B s/n all; 172C s/n all; 172D s/n all; 172E s/n all; 172F (T-41A) s/n all; 172G (T-41A) s/n all; 172H (T-41A) s/n all; 172I s/n all; 172K (T-41A) s/n all; 172L s/n all; 172M s/n all; 172N s/n all; 172P s/n all; 172Q s/n all; 172R s/n all; 172RG s/n all; 172S s/n all; F172D s/n all; F172E s/n all; F172F s/n all; F172G s/n all; F172H s/n all; F172K s/n all; F172L s/n all; F172M s/n all; F172N s/n all; F172P s/n all; FR172E s/n all; FR172F s/n all;

FR172G s/n all;
FR172H s/n all; FR172J
s/n all; FR172K s/n all;
P172D s/n all; R172K
s/n all; 175 s/n all; 175A
s/n all; 175B s/n all;
175C s/n all; 177 s/n all;
177A s/n all; 177B s/n
all; 177RG s/n all;
F177RG s/n all; 180 s/n
all; 180A s/n all; 180B
s/n all; 180C s/n all;
180D s/n all; 180E s/n
all; 180F s/n all; 180G
s/n all; 180H s/n all;
180J s/n all; 180K s/n
all; 182 s/n all; 182A s/n
all; 182B s/n all; 182C
s/n all; 182D s/n all;
182E s/n all; 182F s/n
all; 182G s/n all; 182H
s/n all; 182J s/n all;
182K s/n all; 182L s/n
all; 182M s/n all; 182N
s/n all; 182P s/n all;
182Q s/n all; 182R s/n
all; 182S s/n all; 182T
s/n all; F182P s/n all;
F182Q s/n all; FR182
s/n all; R182 s/n all;
T182 s/n all; T182T s/n
all; TR182 s/n all; 185
s/n all; 185A s/n all;
185B s/n all; 185C s/n
all; 185D s/n all; 185E
s/n all; A185E s/n all;
A185F s/n all; 188 s/n
all ((230 HP)); 188 s/n
all ((300 HP)); 188A s/n
all ((230 HP)); 188A s/n
all ((300 HP)); 188B s/n
all ((230 HP)); A188 s/n
all ((230 HP)); A188 s/n
all ((300 HP)); A188A
s/n all ((230 HP));
A188A s/n all ((300
HP)); A188B (1972-
1975) s/n all ((230 HP));
A188B (w/ large
hopper) (1972-1975) s/n
all ((230 HP)); 190 s/n
all; 195 (LC-126A,B,C)
s/n all; 195A s/n all;
195B s/n all; 210-5
(205) s/n all; 210-5A
(205A) s/n all; 206 s/n
all; 206H s/n all; P206
s/n all; P206A s/n all;
P206B s/n all; P206C
s/n all; P206D s/n all;
P206E s/n all; T206H
s/n all; TP206A s/n all;
TP206B s/n all; TP206C
s/n all; TP206D s/n all;
TP206E s/n all;
TU206A s/n all;
TU206B s/n all;
TU206C s/n all;
TU206D s/n all;
TU206E s/n all;

TU206F s/n all;
 TU206G s/n all;
 U206 s/n all; U206A s/n
 all; U206B s/n all;
 U206C s/n all; U206D
 s/n all; U206E s/n all;
 U206F (1972-1973) s/n
 all; U206F (1974-1976)
 s/n all; U206G s/n all;
 207 s/n all; 207A s/n all;
 T207 s/n all; T207A s/n
 all; 210 s/n all; 210A s/n
 all; 210B s/n all; 210C
 s/n all; 210D s/n all;
 210E s/n all; 210F s/n
 all; 210G s/n all; 210H
 s/n all; 210J s/n all;
 210K s/n all; 210L s/n
 all; 210M s/n all; 210N
 s/n all; 210R s/n all;
 P210N s/n all; P210R
 s/n all; T210F s/n all;
 T210G s/n all; T210H
 s/n all; T210J s/n all;
 T210K s/n all; T210L
 s/n all; T210M s/n all;
 T210N s/n all; T210R
 s/n all; 310P s/n all;
 310Q s/n all; 310R s/n
 all; T310P s/n all;
 T310Q s/n all; T310R
 s/n all; 335 s/n all; 336
 s/n all; 337 s/n all; 337A
 (USAF O2B) s/n all;
 337B s/n all; 337C s/n
 all; 337D s/n all; 337E
 s/n all; 337F s/n all;
 337G s/n all; 337H s/n
 all; F337E s/n all;
 F337F s/n all; F337G
 s/n all; F337H s/n all;
 FT337E s/n all; FT337F
 s/n all; FT337GP
 (FP337) s/n all;
 FT337HP (FP337H) s/n
 all; M337B (USAF
 O2A) s/n all; P337H s/n
 all; T337B s/n all;
 T337C s/n all; T337D
 s/n all; T337E s/n all;
 T337F s/n all; T337G
 s/n all; T337H s/n all;
 T337H-SP s/n all;

ROD END

MCS1105-3

S1105-3

Test and Computation per 14
 CFR § 21.303.
Drawing: List: 6446
Rev: Original
Date: 4/8/2010 or later FAA
 approved revisions.

CESSNA

172RG s/n all; FR182
 s/n all; R182 s/n all;
 TR182 s/n all; TU206F
 (1974-1976) s/n all;
 TU206G s/n all; U206F
 (1974-1976) s/n all;
 U206G s/n all; 310R s/n
 all; T310R s/n all; 337E
 s/n all; 337F s/n all;
 337G s/n all; 337H s/n
 all; F337E s/n all;
 F337F s/n all; F337G
 s/n all; F337H s/n all;
 FT337E s/n all; FT337F
 s/n all; FT337GP

(FP337) s/n all;
FT337HP (FP337H) s/n
all; P337H s/n all;
T337E s/n all; T337F
s/n all; T337G s/n all;
T337H s/n all; T337H-
SP s/n all;

ROD END

MCS1106-3

S1106-3

Test and Computation per 14
CFR § 21.303.

Drawing: List: 6446

Rev: Original

Date: 4/8/2010 or later FAA
approved revisions.

CESSNA

150 s/n all; 150A s/n all;
150B s/n all; 150C s/n
all; 150D s/n all; 150E
s/n all; 150F s/n all;
150G s/n all; 150H s/n
all; 150J s/n all; F150F
s/n all; F150G s/n all;
F150H s/n all; F150J s/n
all; 172 s/n all; 172A s/n
all; 172B s/n all; 172C
s/n all; 172D s/n all;
172E s/n all; 172F
(T-41A) s/n all; 172G
(T-41A) s/n all; 172H
(T-41A) s/n all; 172I s/n
all; 172K (T-41A) s/n
all; 172L s/n all; 172M
s/n all; 172N s/n all;
172P s/n all; 172Q s/n
all; 172R s/n all; 172RG
s/n all; 172S s/n all;
F172D s/n all; F172E
s/n all; F172F s/n all;
F172G s/n all; F172H
s/n all; F172K s/n all;
F172L s/n all; F172M
s/n all; F172N s/n all;
F172P s/n all; FP172 s/n
all; FR172E s/n all;
FR172F s/n all;
FR172G s/n all;
FR172H s/n all; FR172J
s/n all; FR172K s/n all;
P172D s/n all; R172K
s/n all; 175 s/n all; 175A
s/n all; 175B s/n all;
175C s/n all; 177 s/n all;
177A s/n all; 177B s/n
all; 177RG s/n all;
F177RG s/n all; 180 s/n
all; 180A s/n all; 180B
s/n all; 180C s/n all;
180D s/n all; 180E s/n
all; 180F s/n all; 180G
s/n all; 180H s/n all;
180J s/n all; 180K s/n
all; 182 s/n all; 182A s/n
all; 182B s/n all; 182C
s/n all; 182D s/n all;
182E s/n all; 182F s/n
all; 182G s/n all; 182H
s/n all; 182J s/n all;
182K s/n all; 182L s/n
all; 182M s/n all; 182N
s/n all; 182P s/n all;
182Q s/n all; 182R s/n
all; F182P s/n all;
F182Q s/n all; FR182
s/n all; R182 s/n all;
T182 s/n all; TR182 s/n
all; 185 s/n all; 185A s/n

all; 185B s/n all; 185C
s/n all; 185D s/n all;
185E s/n all; A185E s/n
all; A185F s/n all; 188
s/n all; 188A s/n all;
188B s/n all; A188 s/n
all; A188A s/n all;
A188B s/n all; A188B
(w/ large hopper) s/n all;
T188C s/n all; 210-5
(205) s/n all; 210-5A
(205A) s/n all; 206 s/n
all; P206 s/n all; P206A
s/n all; P206B s/n all;
P206C s/n all; P206D
s/n all; P206E s/n all;
TP206A s/n all;
TP206B s/n all; TP206C
s/n all; TP206D s/n all;
TP206E s/n all;
TU206A s/n all;
TU206B s/n all;
TU206C s/n all;
TU206D s/n all;
TU206E s/n all;
TU206F s/n all;
TU206G s/n all; U206
s/n all; U206A s/n all;
U206B s/n all; U206C
s/n all; U206D s/n all;
U206E s/n all; U206F
s/n all; U206G s/n all;
207 s/n all; 207A s/n all;
T207 s/n all; T207A s/n
all; 208 s/n all; 208A s/n
all; 208B s/n all; 210 s/n
all; 210A s/n all; 210B
s/n all; 210C s/n all;
210D s/n all; 210E s/n
all; 210F s/n all; 210G
s/n all; 210H s/n all;
210J s/n all; 210K s/n
all; 210L s/n all; 210M
s/n all; 210N s/n all;
210R s/n all; P210N s/n
P21000001 thru
P21000196; P210N s/n
P21000198 thru
P21000212; P210R s/n
all; T210F s/n all;
T210G s/n all; T210H
s/n all; T210J s/n all;
T210K s/n all; T210L
s/n all; T210M s/n all;
T210N s/n all; T210R
s/n all; 310 s/n all; 310B
s/n all; 310C s/n all;
310D s/n all; 310F s/n
all; 310G s/n all; 310H
s/n all; 310I s/n all; 310J
s/n all; 310J-1 s/n all;
310K s/n all; 310L s/n
all; 310N s/n all; 310P
s/n all; 310Q s/n all;
310R s/n all; E310H s/n
all; E310J s/n all; T310P
s/n all; T310Q s/n all;
T310R s/n all; 320 s/n
all; 320-1 s/n all; 320A
s/n all; 320B s/n all;

320C s/n all; 320D s/n all; 320E s/n all; 320F s/n all; 335 s/n all; 336 s/n all; 337 s/n all; 337A (USAF O2B) s/n all; 337B s/n all; 337C s/n all; 337D s/n all; 337E s/n all; 337F s/n all; 337G s/n all; 337H s/n all; F337E s/n all; F337F s/n all; F337G s/n all; F337H s/n all; FT337E s/n all; FT337F s/n all; FT337GP (FP337) s/n all; FT337HP (FP337H) s/n all; M337B (USAF O2A) s/n all; P337H s/n all; T337B s/n all; T337C s/n all; T337D s/n all; T337E s/n all; T337F s/n all; T337G s/n all; T337H s/n all; T337H-SP s/n all;

ROD END

MCS1106-4

S1106-4

Test and Computation per 14 CFR § 21.303.

Drawing: List: 6446

Rev: Original

Date: 4/8/2010 or later FAA approved revisions.

CESSNA

FP172 s/n all; P172D s/n all; 175 s/n all; 175A s/n all; 175B s/n all; 175C s/n all; 180 s/n all; 180A s/n all; 180B s/n all; 180C s/n all; 180D s/n all; 180E s/n all; 180F s/n all; 180G s/n all; 180H s/n all; 180J s/n all; 180K s/n all; 182 s/n all; 182A s/n all; 182B s/n all; 182C s/n all; 182D s/n all; 182E s/n all; 182F s/n all; 182G s/n all; 182H s/n all; 182J s/n all; 182K s/n all; 182L s/n all; 182M s/n all; 182N s/n all; 182P s/n all; 182Q s/n all; 182R s/n all; F182P s/n all; F182Q s/n all; 188 s/n all; 188A s/n all; 188B s/n all; A188 s/n all; A188A s/n all; A188B s/n all; A188B (w/ large hopper) s/n all; T188C s/n all; 206H s/n all; T206H s/n all; 208 s/n all; 208A s/n all; 208B s/n all; 210K s/n all; 210L s/n all; 210M s/n all; P210N s/n all; P21000001 thru P21000150; T210K s/n all; T210L s/n all; T210M s/n all; T210R s/n all; 310 s/n all; 310B s/n all; 310C s/n all; 310D s/n all; 310F s/n all; 310G s/n all; 310H s/n all; 310I s/n all; 310J s/n all; 310J-I s/n all; 310K s/n all; 310L s/n

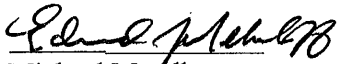
all; 310N s/n all; 310P s/n all; 310Q s/n all; 310R s/n all; E310H s/n all; E310J s/n all; T310P s/n all; T310Q s/n all; T310R s/n all; 320 s/n all; 320-1 s/n all; 320A s/n all; 320B s/n all; 320C s/n all; 320D s/n all; 320E s/n all; 320F s/n all; 335 s/n all; 336 s/n all; 337 s/n all; 337A (USAF O2B) s/n all; 337B s/n all; 337C s/n all; 337D s/n all; 337E s/n all; 337F s/n all; 337G s/n all; 337H s/n all; F337E s/n all; F337F s/n all; F337G s/n all; F337H s/n all; FT337E s/n all; FT337F s/n all; FT337GP (FP337) s/n all; FT337HP (FP337H) s/n all; M337B (USAF O2A) s/n all; P337H s/n all; T337B s/n all; T337C s/n all; T337D s/n all; T337E s/n all; T337F s/n all; T337G s/n all; T337H s/n all; T337H-SP s/n all;

ROD END	MCS1819-4	S1819-4	Test and Computation per 14 CFR § 21.303. <u>Drawing:</u> List: 6446 <u>Rev:</u> Original <u>Date:</u> 4/8/2010 or later FAA approved revisions.	CESSNA	210G s/n all; 210H s/n all; 210J s/n all; 210K s/n all; 210L s/n all; 210M s/n all; 210N s/n all; 210R s/n all; T210G s/n all; T210H s/n all; T210J s/n all; T210K s/n all; T210L s/n all; T210M s/n all; T210N s/n all; T210R s/n all;
ROD END KIT	RE-KT-1	Modification Kit for compliance to Cessna Service Letters, SL62-81, SL79-6 and SL79-6A.	Test and Computation per 14 CFR § 21.303. <u>Drawing:</u> List: 6446 <u>Rev:</u> Original <u>Date:</u> 4/8/2010 or later FAA approved revisions.	CESSNA	120 s/n all; 140 s/n all; 140A s/n all; 170A s/n all; 170B s/n all; 172 s/n all; 172A s/n all; 172B s/n all; 172C s/n all; 175 s/n all; 175A s/n all; 175B s/n all; 175C s/n all; 180 s/n all; 180A s/n all; 180B s/n all; 180C s/n all; 180D s/n all; 180E s/n all; 182 s/n all; 182A s/n all; 182B s/n all; 182C s/n all; 182D s/n all; 190 s/n all; 195 (LC-126A,B,C) s/n all; 195A s/n all; 195B s/n all

----- End of Listing -----

NOTE: Provide minor design changes in a manner as determined by the ACO. Handle Major design changes to drawings and specifications in the same manner as that for an Original FAA-PMA. If TC holder's ICA

applies to these replacement parts, provide a statement noting such. If not provide supplementary ICA per 14CFR § 21.50.



for Michael M. Alberts
Manager, Kansas City
Manufacturing Inspection District Office

March 23, 2011

Date: