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12. (C) Ltr. 1 July 1941
Fr: Douglas Airc. Co., Inc.
El Segundo, Cal.
To: Asst. Chief, Mat. Div., WF
Attn: Airc. Projects
Exp. Eng. Sect.
(File: Contract Files)

Douglas had given special attention to the design of the power plant installation in the XA-26 and the XA-26A in order to provide quick disconnect units at the firewalls. Douglas estimated that the power plant in operating condition with all cowling installed could be removed and replaced by another unit installed and in operation in one hour and thirty minutes, all work being performed by not more than four men. Douglas also designed the demountable power plant assembly to be interchangeable for right or left nacelles.

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Douglas Aircraft Company, Inc.

El Segundo Division

El Segundo, Calif.



Cable Address: "Douglasair"

Ref. No.

25-1864

July 1, 1941

Subject: Contract AC-17946
Model XA-26 & XA-26A Airplanes
Replacement of Power Plant Assembly

To: Assistant Chief, Materiel Division
Wright Field, Dayton, Ohio

Attention: Aircraft Projects Experimental
Engineering Section

Through: Air Corps Representative

Reference: MDAC letter JAB:jmw:50 dated June 20,
1941, subject, Replacement of Power
Plant Assembly in Service Airplanes

*CP sent to
A.C.F.R.
JAB/jmw*

1. The Contractor believes that the subject model airplanes comply with the requirements listed in the reference letter.
2. In the design of the subject model power plant installation special effort has been given to provide quick disconnect units at the firewalls. The Contractor estimates that the power plant in operating condition and with all cowl- ing installed may be removed and a similar unit installed and in operation in not more than 1 hour and 30 minutes. All work may be performed by not more than four (4) men. A platform on each side of the engine mount and movable hoists will be required to meet the 1 hour and 30 minute time limit. It is possible, however, to replace the power plant assembly without these plat- forms.
3. The demountable power plant assembly consisting of the engine, propeller, cowl- ing, engine mount, and all component parts in the engine mount section, such as the vacuum system oil

CONTRACT FILES

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July 1, 1941

25-1864

Cont. of 2406

(pg. 2/3)

separator, vacuum system safety relief valve, booster coil junction box, cowl flap motor, propeller feathering pump, oil dilution solenoid, and engine section junction box containing autosyn transmitters may be removed by the following procedure:

- (a) Drain oil system
- (b) Remove access doors in the nacelle.
(Dzus fastener retained)
- (c) Remove access doors in the engine mount. (Dzus fastener retained)
- (d) Remove central portion of firewall.
(Dzus fastener retained)
- (e) Disconnect, by means of quick disconnect units, all fuel, oil, and vent lines.
- (f) Disconnect, by removing plugs, all electrical lines.
- (g) Disconnect, by quick release units, all engine controls.
- (h) Disconnect, by special fittings, all vacuum and hydraulic connections.
- (i) Remove anti-drag ring.
- (j) Attach hoist to engine hoisting eyes.
- (k) Remove four (4) small cover plates over engine mount attaching bolts (single Dzus fastener per cover plate).
- (l) Remove six (6) engine mount attaching bolts (may be approached with speed-wrench externally).
- (m) Swing engine free and replace with similar unit reversing the above procedure.

4. In addition to the special effort made for ease and speed of replacement of power plant assemblies, the Contractor has also designed the demountable power plant assembly to be

1864

Cont. F. 17446

(p. 3/3)

CONFIDENTIAL

Page 3

July 1, 1941

interchangeable for right or left hand nacelles.

Douglas Aircraft Company, Inc.
El Segundo Plant

J. A. Leonardt
for - E. H. Weinemann
Chief Engineer

RECEIVED
JUL 3 1941
A. C. F. R.
DOUGLAS

RCD:bm

cc: W. Dist. Suprv.
John Rogers
L. E. Miller
R. C. Donovan
W. J. Lockett

JUL 3 1941
No Comment.

Dean Farran
DEAN FARRAN
Capt. U. S. Air Corps
Acting Air Corps Factory Representative

[REDACTED]