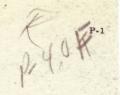
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## ARMY AIR FORCES MATERIEL CENTER FLIGHT SECTION

MEMORANDUM REPORT ON

Single Engine Pursuit P-40F, AAF No. 41-13635

HJB: da: 19

Date April 3, 1943

SUBJECT:

Propeller Test

BRANCH

Flight Test

SERIAL No. FS-M-19-1578-A

Contract No. ....

Expenditure Order No. ......577-5

Purchase Order No.

## A. Purpose.

l. Report on performance of P-40F airplane equipped with three-bladed constant speed propeller, Dwg. No. 101344-24 and standard spinner. Memorandum Report No. FS-M-19-1549-A bists comparative performance with five other propellers. Airplane equipped with V-1650-1 engine and flown with wing flaps neutral, wheels up, carburetor cold, mixture "auto-rich", auto boost "off", high blower ratio, radiator flap neutral for level flight and wide open for climb, full gas and oil load at take-off, six .50 caliber wing guns with ball type blast tubes in place, no ammunition, and belly tank shackles in place. Horsepower figures obtained from power charts.

## B. Test Results.

1. Level flight speeds at 18,100 feet.

elly Tank Sway Braces installed (Without Tank)			Belly Tank Sway Braces Removed.		
ue Speed MPH	RPM .	b.h.p.	True Speed MPH	RPM	b.h.p
369.5 336 311 283.5 258 233 194	2950 2650 2400 2200 2000 2000 2000	1100 890 760 635 530 445 360	374 342 317.5 291.5 266 240 200	2950 2650 2400 2200 2000 2000 2000	1100 890 760 635 530 1445 360

Flight Section Memorandum Report No. FS-M-19-1578-A April 3, 1943

Maximum rate of climb at wide open throttle and high blower, 2850 RPM. Belly tank sway braces installed (without tank).

Altitude Feet	True Airspeed MPH		Rate of Climb Ft/Min.	b.h.p.
18,000		201	2185	2040
22,000		207	1725	
25,000	* ************************************	207	1380	915
28,000		217	1725 1380 1040	2° 710

Results of take-off tests obtained by photographic method will . be reported by the Aircraft Leboratory.

Homes & Batis HOMER J. BATES Concurrence: Prepared by ... Ather, MRNEST K. WARBURTON, Colonel, AC Approved by Chief. Flight Test Branch Distribution: J. M. GILLESPIES Colonel, AC Approved by ... Chief, Engineering Division Chief, Flight Section (Attn: Flight Research & Liaison Br.) Chief, Production Division Chief, Aircraft Projects, Engr. Div. Project Officer

Chief, Aircraft Lat atory (2) Chief, Aerodynamics ranch Chief, Power Plant Laboratory Chief, Propeller Laboratory Centre Files