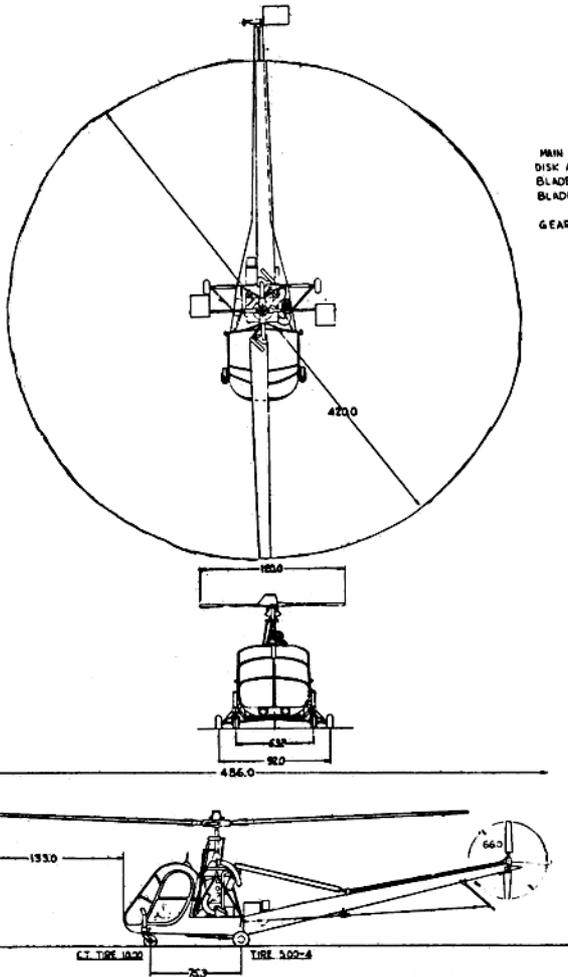


Standard Aircraft Characteristics, NAVAER 1335A (REV. 1-49)

# STANDARD AIRCRAFT CHARACTERISTICS

## HTE-2

HILLER



MAIN ROTOR DATA  
 DISK AREA - 962 SQ FT  
 BLADE AREA - 32.3 SQ FT  
 BLADE SECTION -  
 NACA 0017-00114  
 GEAR RATIO - 9:7 = 1

Standard Aircraft Characteristics NAVAER 13358 (REV. 1-49)

**POWER PLANT**

NO. & MODEL.....(1) O-335-6  
 MFR.....Franklin  
 ROTOR GEAR RATIO.....0.109  
 TAIL ROTOR RATIO.....0.629

**RATINGS**

	<u>Bhp.</u> ●	<u>Rpm</u> ●	<u>Alt.</u>
T.O.	200	3100	S.L.
NORMAL	200	3100	S.L.

SPEC. NO. 19261A

**ACCOMMODATIONS**

CREW.....2  
 PASSENGER.....1  
 LITERS.....2

**MISSION AND DESCRIPTION**

The HTE-2 helicopter is procured primarily for use as a trainer. It is similar in general configuration and rotor dimensions to the HTE-1 helicopter but has a 200 HP engine in place of the 178 HP engine and quadricycle instead of tricycle landing gear. These changes result in an increase in gross weight.

The model HTE-2 helicopter is a three-place (side-by-side) aircraft equipped with dual controls operated from the left and center seat positions. The aircraft has a two-bladed, teetering main rotor, a two-bladed, anti-torque tail rotor, and is equipped with an aerodynamic servo control rotor, whereby cyclic control is obtained through the aerodynamic action of two small airfoils mounted to the rotor hub at right angles to the main rotor blades.

**DEVELOPMENT**

Service use.....January 1951

**WEIGHTS**

<u>Loadings</u>	<u>Lbs.</u>	<u>L.F.</u>
EMPTY.....	1,762.....	
BASIC.....	1,769.....	
DESIGN....	2,500.....	2.84
MAX.T.O....	2,400 * .....	
MAX.LAND..	2,400.....	

\* Limited by performance

All weights are actual

**FUEL AND OIL**

<u>Gals.</u>	<u>No. Tanks</u>	<u>Location</u>
28	1	Fuselage
FUEL GRADE.....		91/96
FUEL SPEC.....		MIL-F-5572

**OIL**

CAPACITY (Gals.).....2.5  
 GRADE.....1100  
 SPEC.....MIL-O-6082

**DIMENSIONS**

DISC AREA.....962.0 sq.ft.  
 BLADE AREA.....32.3  
 BLADE DIA.....35'  
 SPAN \*.....10'  
 LENGTH.....40' -5"  
 HEIGHT.....9' -6"  
 TREAD.....7' -8"  
 CONTROL ROTOR  
 BLADE AREA....3.55 sq.ft.  
 STABILIZER AREA.2.49 sq.ft.

\*Rotor stationed fore and aft.

**ELECTRONICS**

Receiver.....R-19  
 Transmitter.....T-11A  
 Transmitter.....T-13  
 Receiver.....R-11A

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) TRAINER 1 Pilot 1 Student	(2) UTILITY 1 Pilot 1 Passenger			
TAKE-OFF WEIGHT	lb.	2,338	2,400			
Fuel	lb.	168	168			
Payload	lb.	190	252			
Disc loading	lb./sq.ft.	2.4	2.5			
Vertical rate of climb at S.L. (A/B)	fpm.	0	--			
Absolute hovering ceiling (A/B)	ft.	0	--			
Max. rate of climb at S.L. (A)	fpm.	780	740			
Service ceiling (100 fpm) (A)	ft.	7,400	7,000			
Speed at S.L. (A)	kn.	73	72			
Max. speed/altitude (A)	kn./ft.	73/S.L.	72/S.L.			
Combat range	n.mi.	110	105			
Average cruising speed	kn.	67	67			
Cruising altitude	ft.	1,500	1,500			
Max. Endurance	hrs.	2.0	2.0			
Average cruising speed	kn.	40	41			
Cruising altitude	ft.	1,500	1,500			

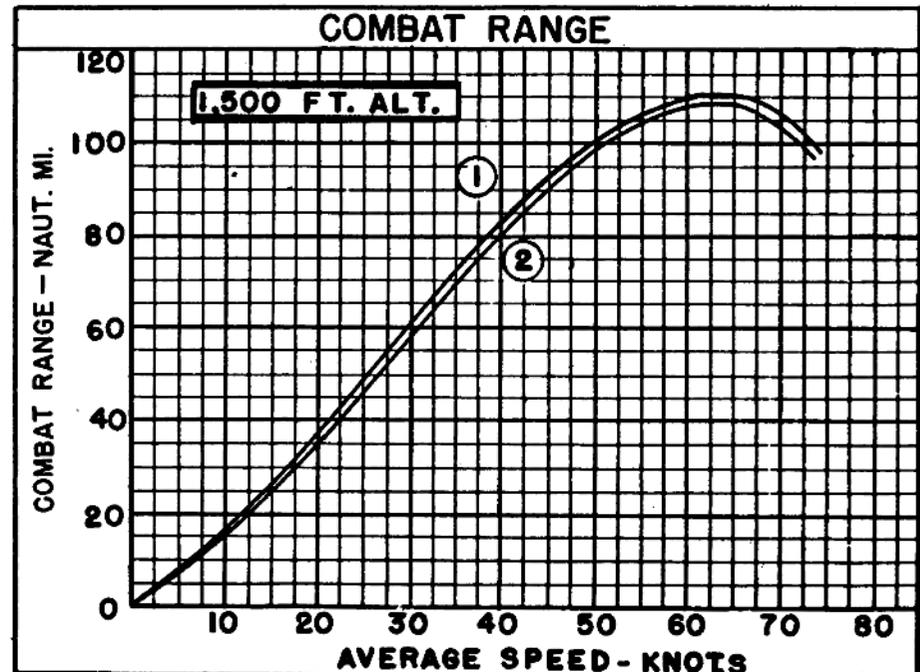
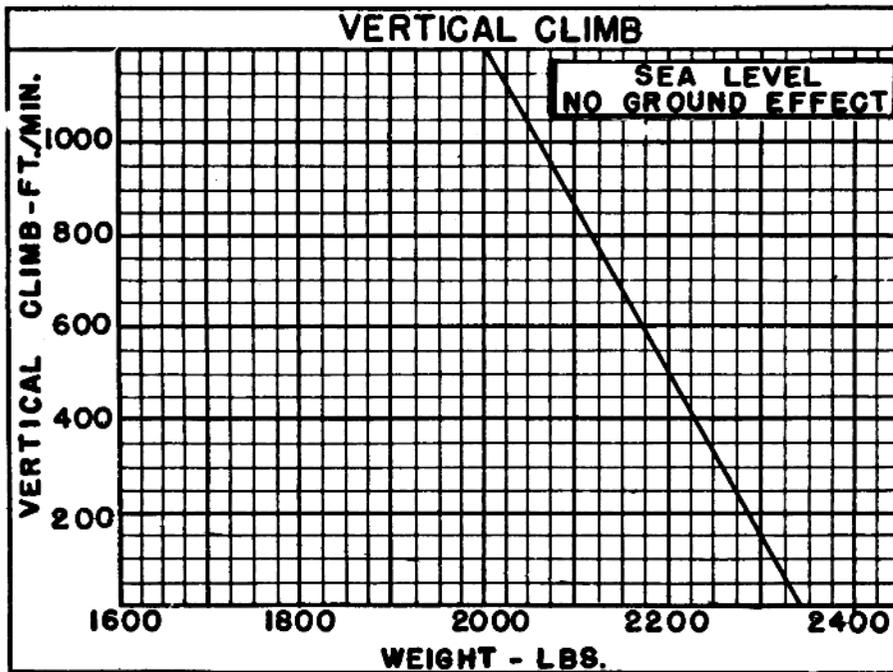
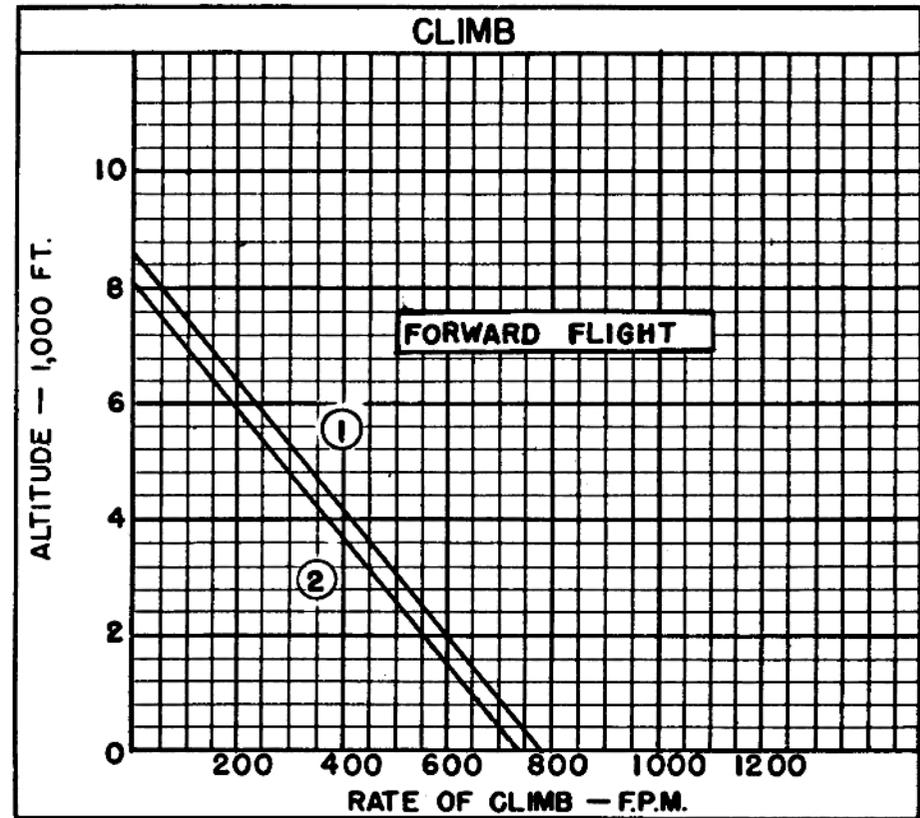
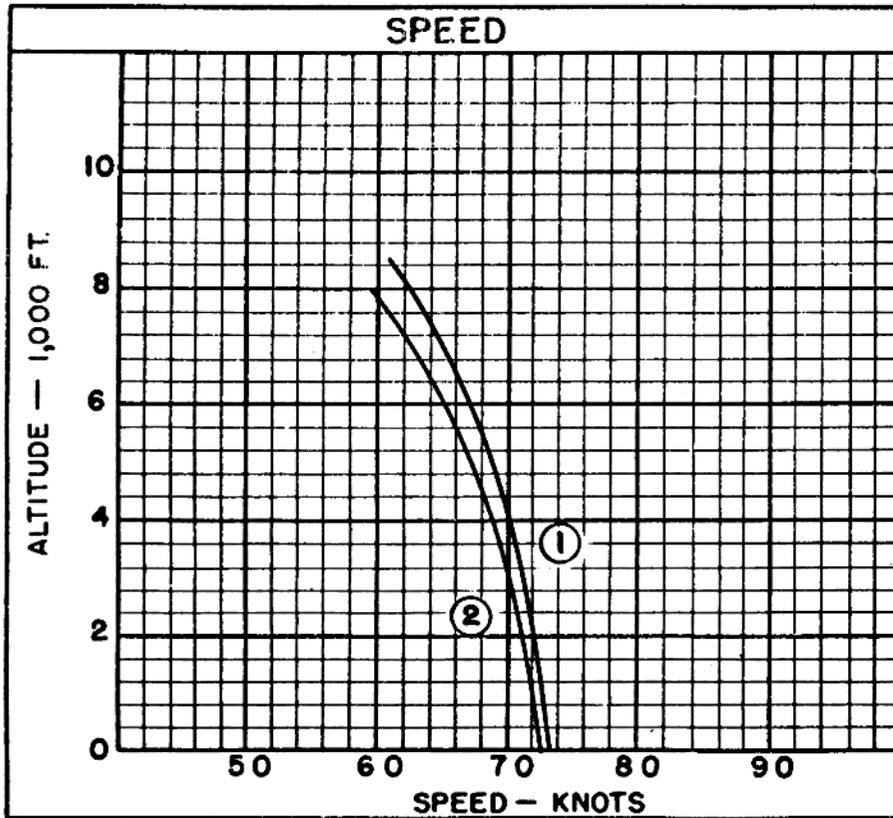
## NOTES

- (A) Normal power  
(B) Take-off power

Performance is based on MATESTCEN flight test of the HTE-2

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 Combat range and maximum endurance are based on engine specification fuel consumption data increased by 5% and allowing fuel for warm-up and take-off (5 minutes at NRP) and a 10% fuel reserve. 3100 RPM is used at all speeds.  
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All performance is out of ground effect.  
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○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1335E (REV. 2-50)