

GANDER AIRCRAFT CORPORATION  
MIAMI, FLORIDA

FAA APPROVED AIRPLANE FLIGHT MANUAL  
IN ACCORDANCE WITH STC NO. SA81SO

GRUMMAN G-44 & G-44A

SERIAL NUMBER 1377

REGISTRATION NO. N0133H

FOR THIS AIRCRAFT ONLY

FAA Approved:

  
Henry C. Galler  
Supervisor  
MIA EMDO

Date Approved: January 17, 1964

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GANDER AIRCRAFT CORP.

LOG OF REVISIONS

<u>REV</u>	<u>PAGE</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>APPROVED</u>
1.	1 8	10/1/64	Added -2 to propeller P/N	<i>Henry C. Fuller</i>
2.	1 8	9/3/65	Added -M to engine P/N	<i>Henry C. Fuller</i> Henry C. Fuller; Supervisor SO-EMO-43
3.	1 7 8	6/28/67	Delete "Day" Add -4 Prop Switch fuel pump and filter Add -4 prop	<i>Henry C. Fuller</i> Henry C. Fuller Supervisor MIA 0400

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## OPERATING LIMITATIONS

### Power Plant Limitations

Continental Engine (2) Model IO-470-E  
" IO-470-M (STC SE15280)  
RPM HP ALT.  
Max. Continuous for all operations 2625 260 Sea Level

Fuel - 100/130 minimum octane aviation gasoline  
(Usable capacity 94 gals.)

Propeller - Hartzell HC-82XF-2B/3433-2 Low Pitch Stop set at  
or HC-82XF-2B/3433-4 12.5° at 30 in. stop

### Airspeed Limitations

1. Level flight or climb 175 MPH (TIAS)
2. Glide or dive 210 MPH (TIAS)
3. Maximum Flap Lowering Speed 104 MPH (TIAS)
4. Minimum Control Speed - the minimum speed at which the airplane is controllable in flight, with sudden failure of engine, with maximum power on the other engine 80 MPH (TIAS)

### Gross Weight & Center of Gravity Limitations

Maximum Weight - 4040 lbs.

Center of Gravity Range

17.8 to 20.8 at 4040 lbs.

14.8 to 20.8 at 4700 lbs. or less

### Placards

- (1) THIS AIRPLANE MUST BE OPERATED IN ACCORDANCE WITH THE AIRPLANE FLIGHT MANUAL. ACROBATICS AND INTENTIONAL STALLS PROHIBITED. OPERATE VFR ONLY.

### Flight Load Factor

The positive limit load factor is 4.3

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OPERATING PROCEDURESGround Check

1. Make visual inspection of airplane.
2. Check oil level.
3. If the engines have been inoperative for several hours, pull the propellers thru three or four times, more in cold weather.

Before Starting Engines

1. Parking brakes - ON
2. Landing gear control - DOWN and LOCKED
3. Battery and generator switches - ON
4. Fuel quantity - CHECKED
5. Fuel valves - BOTH TANK VALVES ON - CROSS FLOW OFF
6. Throttles - 1/8 OPEN
7. Propellers controls - FORWARD
8. Mixture - IDLE CUT-OFF
9. Carburetor air - COLD (IN)
10. Radio - OFF

Starting Engines

1. Ignition switches - ON
2. Fuel boost pumps - ON
3. Engage starter, move mixture control to normal and actuate throttle until engine fires.
4. If engine fires and fails to run, momentarily move mixture control back to IDLE CUT-OFF and then back to NORMAL when it fires.
5. If oil pressure fails to show in thirty seconds, stop engine and investigate.
6. Fuel boost pumps - OFF
7. Warm up engines at 1000 RPM

Before Take Off

1. Advance throttles to 1800 RPM and check magneto drop (125 RPM maximum), check oil temperature and pressure, fuel pressure and ammeter.
2. Retard propeller pitch controls and note drop in RPM, advance propeller pitch controls full forward.
3. Controls - UNLOCKED AND FREE
4. Mixtures - FULL RICH
5. Fuel boost pumps - ON
6. Trim tabs - SET
7. Wing Flaps - UP Land                      DOWN 12° Water
8. GEAR UP FOR WATER TAKE-OFF

After Take-Off

1. Gear - UP
2. Airspeed - 100 MPH
3. Flaps - UP
4. Manifold Pressure 24 in. & RPM
5. Fuel boost pumps - AS REQUIRED
6. Determine the desired power for cruise from power chart
7. Leave mixture in NORMAL position

Before Landing

1. Check brakes - OFF
2. Fuel boost pumps - AS REQUIRED
3. Landing gear - DOWN FOR LAND, UP FOR WATER
4. Flaps - AS DESIRED BELOW 104 MPH (TIAS)
5. Propellers - FULLFORWARD WHEN APPROACHING FIELD BOUNDARY
6. Fuel Valves - BOTH TANK VALVES ON - CROSS FLOW OFF

After Landing

1. Flaps - UP
2. Fuel boost pumps - OFF
3. Brakes - SET FOR PARKING
4. Idle engines at 1000 RPM. Place mixture controls in IDLE CUT-OFF
5. After engines stop
  - a. Radio - OFF
  - b. All switches - OFF
  - c. Fuel valves - OFF
  - d. Master switch - OFF



## EMERGENCY PROCEDURES

### Balked Landing

If it is necessary to go around just prior to landing

- (1) Apply full power
- (2) Retract landing gear - provided no ground contact is assured
- (3) Retract flaps slowly
- (4) Follow normal take off procedures

### Engine Failure

1. If an engine fails during the take-off run, close the throttles and stop
2. If engine failure occurs after the airplane is airborne, and single engine climb speed attained use the following procedure:

#### OPERATING ENGINE

- a. Full throttle and 2625 RPM
- b. Gear up
- c. Flaps UP - if from water take-off

#### INOPERATIVE ENGINE

- a. Throttle closed
- b. Propeller to feather (control aft)
- c. Mixture - IDLE CUT-OFF
- d. Ignition switch - OFF
- e. Gas supply - OFF

3. Airspeed - 94 MPH to 97 See performance graph for best single engine airspeed

4. Airspeed trim - AS REQUIRED

5. Single Engine Operation - Fuel Management

If engine was stopped for reason other than fuel line, component failure or fire, it will be permissible to use cross flow system with stopped engine valve on. USE CAUTION - check for fuel leakage from stopped engine or other malfunction. See Page 7 for fuel system schematic.

### Complete Hydraulic Failure

An emergency hand hydraulic pump is provided on the left side of the pilots seat to furnish pressure to the system in case of failure of the engine driven hydraulic pump. The landing gear and flaps can be operated by placing the appropriate control to the desired position and actuation the emergency pump.

### Generator Failure

If a generator fails, turn generator switch off and monitor electrical equipment power usage as necessary.

### Performance

For best two engine angle of climb 77 MPH

For best two engine rate of climb 86 MPH (1engine - 96 MPH)

Chart on Page 8 gives single engine rate of climb at 4840 lbs. gross weight us altitude. Also best airspeed to maintain for given rate of climb.

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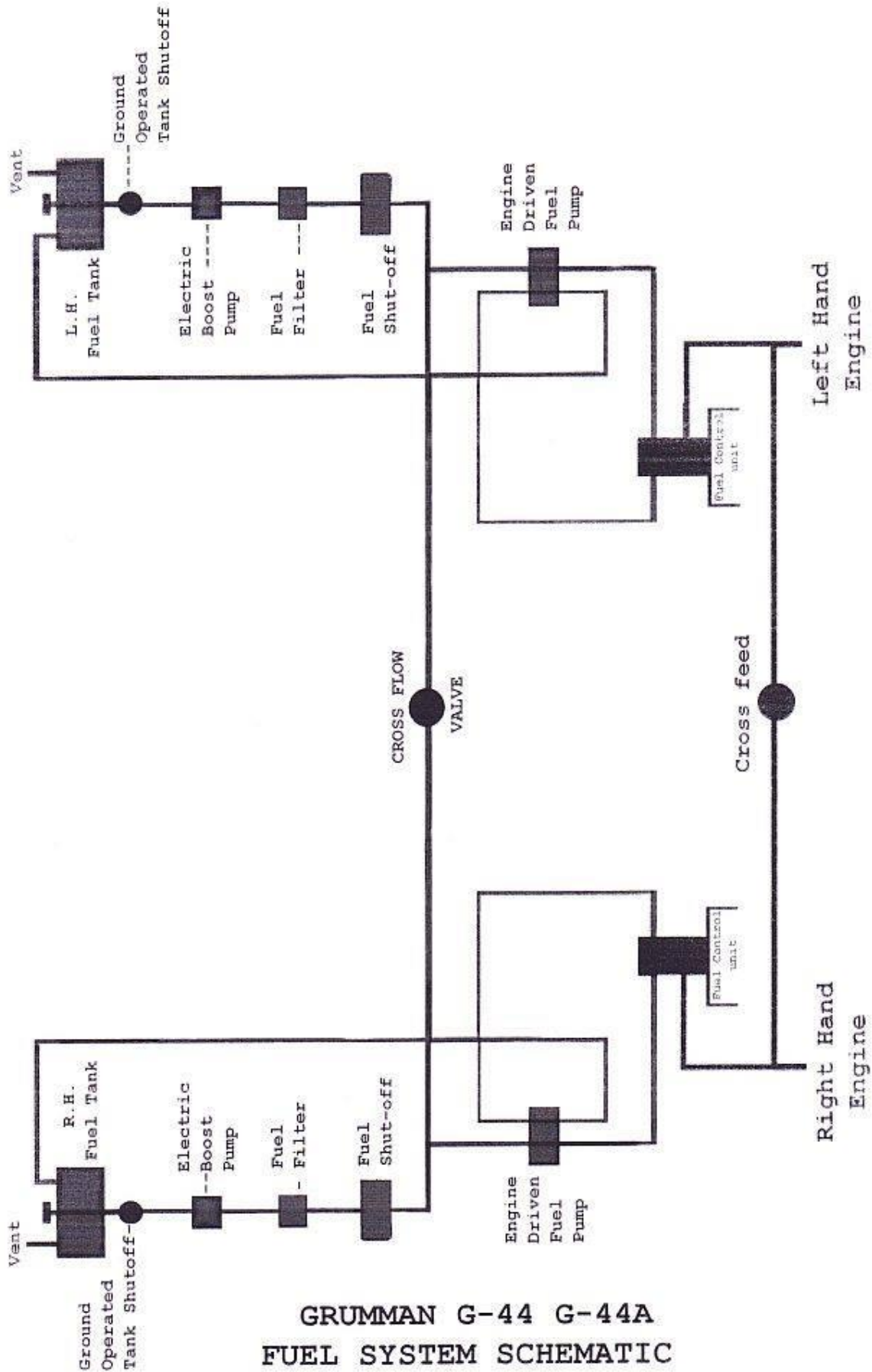
Date: January 17, 1964

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Rev: 6/28/67

FOR REFERENCE ONLY - REFER TO APPROVED OPERATING MANUAL  
FOR THE SPECIFIC AIRCRAFT BEING FLOWN FOR ALL FLIGHT RELATED DATA



GRUMMAN G-44 G-44A  
FUEL SYSTEM SCHEMATIC



RATE OF CLIMB

GRUMMAN

ENGINE CONTINENTAL  
O-470B

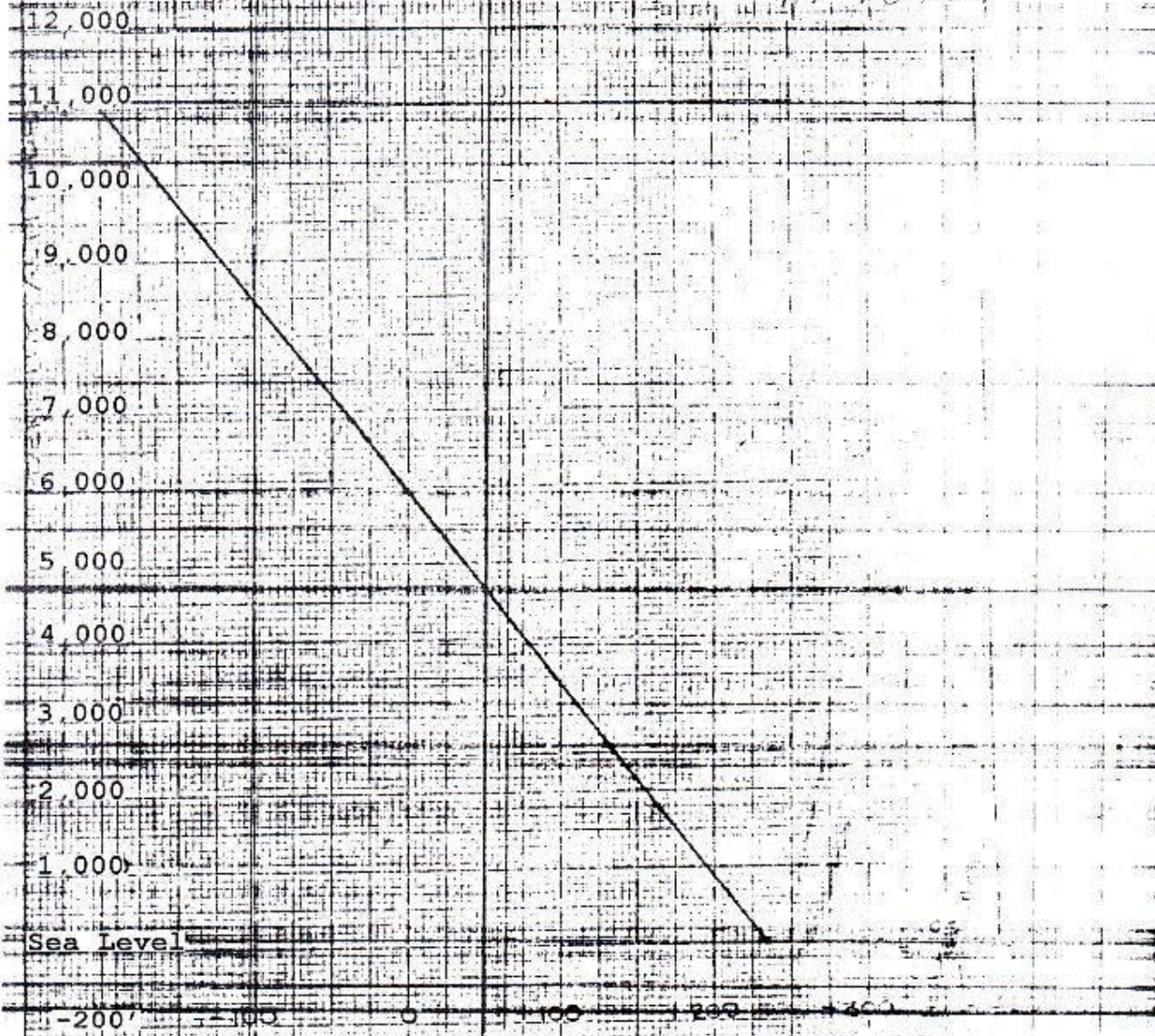
PROPELLER  
HC82XP-28X24

AT 4700 L.  
OR

ENGINE CONTINENTAL  
PROPELLER HAR

HC82XE-2  
HC82XE-2.1

AT 4500 L.



Sea Level

-200'

-100

0

+100

+200

+300

RATE OF CLIMB

F.A.A. 611

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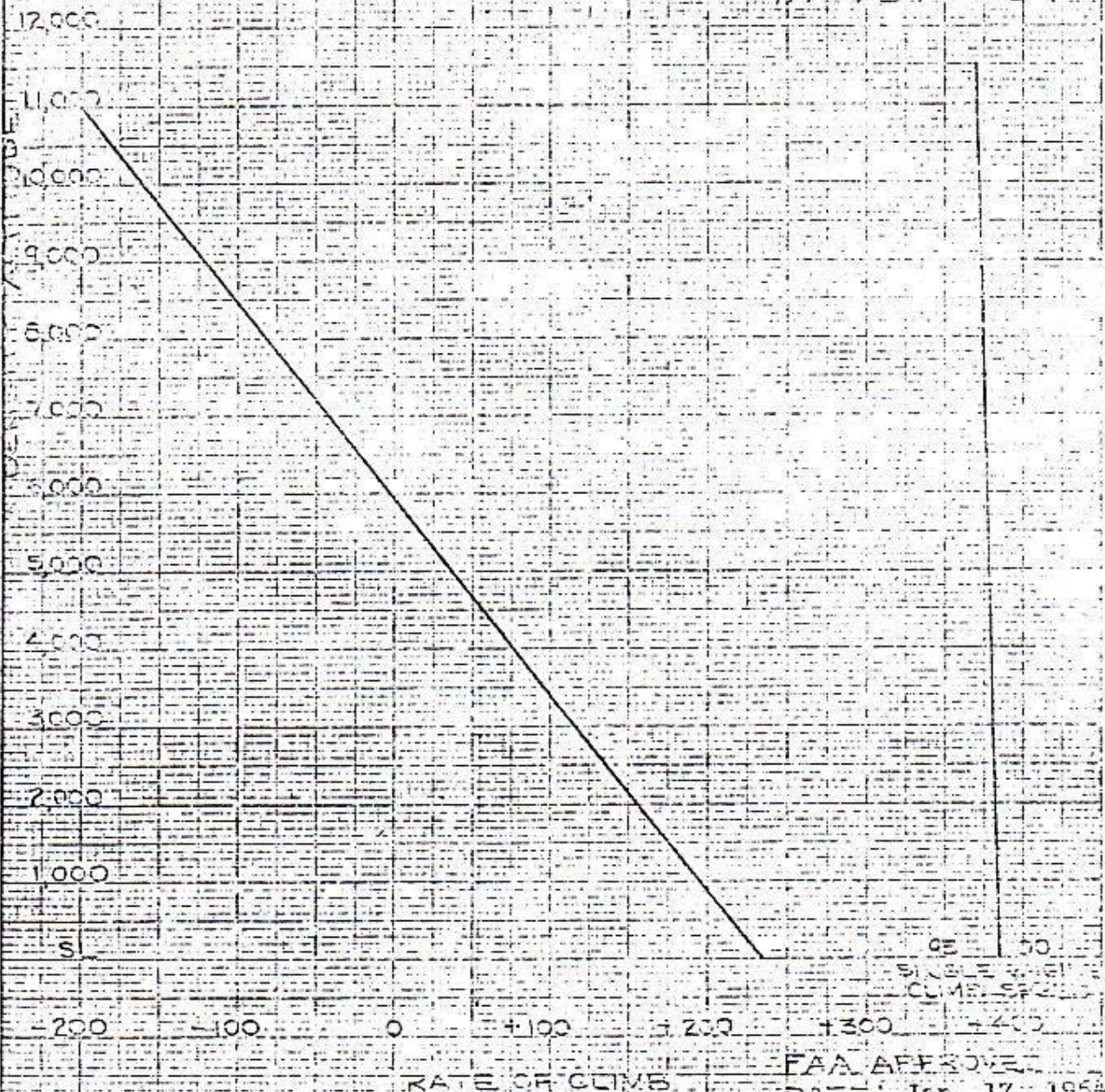
PERFORMANCE SINGLE ENGINE  
RATE OF CLIMB

GRUMMAN G-44 44-1

ENGINE: CONTINENTAL  
O-470B

PROPELLER: HARTZELL  
HCB2XF28/34UB  
AT 4700 LBS

OR  
ENGINE: CONTINENTAL O-470E  
PROPELLER: HARTZELL  
HCB2XF-28/34UB-2  
HCB2XF-28/34UB-1  
AT 4890 LBS



50  
SINGLE ENGINE  
CLIMB SPEED

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