

AIRCRAFT MODEL: TB-25N
ENGINE (S): R-2600-29A OR -35
HOLLEY HB OR BENDIX-STROMBERG CARB.

FLIGHT OPERATION INSTRUCTION CHART

STANDARD DAY

CHART WEIGHT LIMITS: 21,000 POUNDS OR LESS

EXTERNAL LOAD ITEMS:

NONE

NUMBER OF ENGINES OPERATING: TWO

INSTRUCTIONS FOR USING CHART: Select figure in FUEL column equal to or less than amount of fuel to be used for cruising, move horizontally to right or left and select RANGE value equal to or greater than the statute or nautical air miles to be flown. Vertically below (M.P.) and MIXTURE setting required. Refer to corresponding column and altitude for new power settings when gross weight falls below limits of this chart.

NOTES: Column I is for emergency high speed cruising only. Columns II, III, IV and V give progressive increase in range at a sacrifice in speed. Air miles per gal. (MI/GAL.) (no wind), gal. per hr. (G.P.H.) and true airspeed (T.A.S.) are approximate values for reference. Range values are for an average airplane flying alone (no wind).

Figure A-10. Flight Operation Instruction Chart

COLUMN I		FUEL(I) U S GAL	COLUMN II		COLUMN III		COLUMN IV		FUEL(I) U S GAL	COLUMN V																					
RANGE IN AIRMILES			RANGE IN AIRMILES		RANGE IN AIRMILES		RANGE IN AIRMILES			RANGE IN AIRMILES																					
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL																				
SUBTRACT FUEL ALLOWANCES NOT AVAILABLE FOR CRUISING(1)																															
260	225	400	460	400	645	560	840	720	400	940	815																				
195	170	300	345	300	485	420	630	540	300	710	615																				
125	110	200	230	200	320	280	420	360	200	475	410																				
65	55	100	115	100	160	140	210	180	100	235	205																				
MAXIMUM CONTINUOUS		PRESS ALT. FEET	(1.15 Stat. (1.0 Naut.) MI./Gal.)		(1.16 Stat. (1.4 Naut.) MI./Gal.)		(2.1 Stat. (1.82 Naut.) MI./Gal.)		PRESS ALT. FEET	(2.36 Stat. (2.05 Naut.) MI./Gal.)																					
R.P.M.	M.P. INCHES		MIX- TURE	APPROX.		R.P.M.	M.P. INCHES	MIX- TURE		APPROX.		R.P.M.	M.P. INCHES	MIX- TURE	APPROX.																
				TOT GPH	T.A.S. MPH KN					TOT GPH	T.A.S. MPH KN				TOT GPH	T.A.S. MPH KN	TOT GPH	T.A.S. MPH KN													
2400	F.T.		F.R.	390	291	262	20000	2100		F.T.	F.R.	250	297	256	2100	28.5	F.R.	175	277	240	2000	26.0	C.L.	125	262	227	20000	2000	21.0	C.L.	100
2400	F.T.	F.R.	310	280	243	10000	2100	30.0	F.R.	235	270	234	2100	29.0	C.L.	130	265	230	1700	27.5	C.L.	115	243	211	20000	1650	21.0	C.L.	87	216	187
2400	F.T.	F.R.	425	287	249	5000	2100	30.0	F.R.	215	256	222	2100	29.0	C.L.	165	265	230	1650	F.T.	C.L.	110	230	199	10000	1600	21.0	C.L.	89	210	182
2400	39.0	F.R.	425	272	236	S.L.	2100	31.5	F.R.	205	242	210	2000	29.0	C.L.	150	248	215	1500	26.0	C.L.	100	211	183	5000	1500	21.0	C.L.	82	194	168
SPECIAL NOTES		EXAMPLE																													

SPECIAL NOTES

(1) Make allowance for warm-up, take-off and climb, plus allowance for wind, reserve and combat as required.

HIGH BLOWER RATIO ABOVE HEAVY LINE.

DATA AS OF: 1/25/54. BASED ON FLIGHT TEST.

EXAMPLE

At 21,000 lb. gross weight with 200 gal. of fuel (after deducting total allowances of 100 gal.) to fly 420 statute air miles at 5000 ft. altitude maintain 1500 RPM and 26 in. manifold pressure with mixture set: CRUISING LEAN.

LEGEND

ALT.: Pressure Altitude
M.P.: Manifold Pressure
G.P.H.: Fuel flow per hour
TAS: True Airspeed
KN.: Knots
S.L.: Sea Level
F.R.: Full Rich
A.R.: Auto Rich
A.L.: Auto Lean
C.L.: Cruising Lean
M.L.: Manual Lean
F.T.: Full Throttle

FUEL GRADE: 100/130
FUEL DENSITY: 6.0 LB/GAL

T.O. 1B-25(T)N-1

AIRCRAFT MODEL: TB-25N
ENGINE (S): R-2600-29A OR -35
HOLLEY HB OR BENDIX-STROMBERG CARB.

FLIGHT OPERATION INSTRUCTION CHART
STANDARD DAY
CHART WEIGHT LIMITS: 23,500 TO 21,000 POUNDS

EXTERNAL LOAD ITEMS:
NONE
NUMBER OF ENGINES OPERATING: TWO

INSTRUCTIONS FOR USING CHART: Select figure in FUEL column equal to or less than amount of fuel to be used for cruising, move horizontally to right or left and select RANGE value equal to or greater than the statute or nautical air miles to be flown. Vertically below and opposite values nearest desired cruising altitude (ALT.) read RPM manifold pressure (M.P.) and MIXTURE setting required. Refer to corresponding column and altitude for new power settings when gross weight falls below limits of this chart.

NOTES: Column I is for emergency high speed cruising only. Columns II, III, IV and V give progressive increase in range at a sacrifice in speed. Air miles per gal. (MI/GAL.) (no wind), gals per hr. (G.P.H.) and true airspeed (T.A.S.) are approximate values for reference. Range values are for an average airplane flying alone (no wind).

COLUMN I			FUEL (I) U.S. GAL	COLUMN II			COLUMN III			COLUMN IV			FUEL (I) U.S. GAL	COLUMN V																	
RANGE IN AIRMILES				RANGE IN AIRMILES			RANGE IN AIRMILES			RANGE IN AIRMILES				RANGE IN AIRMILES																	
STATUTE	NAUTICAL			STATUTE	NAUTICAL		STATUTE	NAUTICAL		STATUTE	NAUTICAL			STATUTE	NAUTICAL																
SUBTRACT FUEL ALLOWANCES NOT AVAILABLE FOR CRUISING (I)																															
450	390		700	805	700		1125	980		1470	1275		700	1630	1415																
385	335		600	690	600		965	840		1260	1090		600	1400	1215																
320	280		500	575	500		805	700		1050	910		500	1155	1015																
260	225		400	460	400		645	560		840	730		400	935	810																
195	170		300	345	300		485	420		630	545		300	705	610																
MAXIMUM CONTINUOUS																															
RPM	M.P. INCHES	MIX- TURE	APPROX.			PRESS. ALT. FEET	(1.15 Stat. (1.0 Naut.) MI./Gal.)			(1.61 Stat. (1.4 Naut.) MI./Gal.)			(2.1 Stat. (1.82 Naut.) MI./Gal.)			(2.32 Stat. (2.02 Naut.) MI./Gal.)															
			TOT.	T.A.S.	APPROX.			APPROX.			APPROX.			APPROX.																	
			GPH	MPH	KN		GPH	MPH	KN	GPH	MPH	KN	GPH	MPH	KN	GPH	MPH	KN													
2400	F.T.	F.R.	250	291	253	20,000	2400	F.T.	F.R.	250	292	253	2100	28.5	F.R.	170	273	237	2000	24.0	C.L.	120	255	221	20,000	2000	21.0	C.L.	100	235	205
2400	F.T.	F.R.	390	300	261	15,000	2100	33.7	F.R.	240	279	242	2100	28.5	F.R.	160	260	225	1700	27.5	C.L.	115	240	208	15,000	1650	21.0	C.L.	87	210	182
2400	F.T.	F.R.	310	278	242	10,000	2100	F.T.	F.R.	235	268	233	2100	28.5	C.L.	160	260	225	1600	F.T.	C.L.	105	223	193	10,000	1600	21.0	C.L.	89	205	180
2400	F.T.	F.R.	425	283	246	5000	2100	30.5	F.R.	215	255	221	2100	29.0	C.L.	150	244	212	1500	25.0	C.L.	100	208	180	5000	1500	21.0	C.L.	82	190	166
2400	39.0	F.R.	425	270	235	S.L.	2100	31.5	F.R.	205	241	209	2000	29.0	C.L.	140	227	197	1400	27.0	C.L.	90	193	167	S.L.	1400	21.0	C.L.	73	173	150

SPECIAL NOTES

(1) Make allowance for warm-up, take-off and climb, plus allowance for wind, reserve and combat as required.

HIGH BLOWER RATIO ABOVE HEAVY LINE.

DATA AS OF: 1/25/54. BASED ON FLIGHT TEST.

EXAMPLE

At 23,500 lb. gross weight with 600 gal. of fuel (after deducting total allowances of 100 gals.) to fly 690 statute air miles at 15,000 ft. altitude maintain 2100 RPM and 34 in. manifold pressure with mixture set: FULL RICH. When weight decreases below 21,000 lb. refer to next weight chart, 21,000 or less lb. under col. II to 15,000 ft.

LEGEND

ALT.: Pressure Altitude
M.P.: Manifold Pressure
GPH: Fuel flow per hour
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S.L.: Sea Level
F.R.: Full Rich
A.R.: Auto Rich
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C.L.: Cruising Lean
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FUEL GRADE: 100/130
FUEL DENSITY: 6.0 LB/GAL