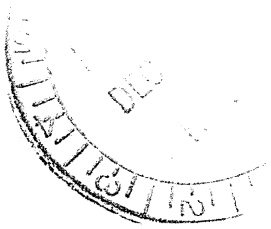
T.O. 3-1-1

TECHNICAL MANUAL

LIST OF PROPELLERS AND GOVERNORS FOR SERVICE AIRCRAFT



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1. GENERAL.

a. The accompanying tabulation lists the various types of propellers and governors used on service aircraft, also, the blade angle settings and various other propeller system data. The information in the tables will apply when conflicting data are found in aircraft manuals. When local conditions make desirable a deviation from the specified setting, a change from 1/2 degree below to 1 degree above the value given is permitted. A change of 1 degree in blade angle setting will cause a change of 60 to 90 rpm for non-controllable propellers when the aircraft is in level flight at full throttle.

b. Because of the variety of models of propellers and governors, and the high degree of interchangeability, Table II does not list all possible models which can be used on a particular aircraft. The models shown are those which were installed in production, plus the current production model of the same general type.

c. A permanent reduction not in excess of 2 inches in specified propeller diameter (1 inch in radius) is permitted on the following aircraft using aluminum-alloy blades.

(1) All types of bombers.

(2) All types of fighters.

(3) Cargo aircraft.

(4) High-performance photographic aircraft.

(5) Amphibious Aircraft (flying boats).

d. A maximum permanent reduction of 6 inches in specified propeller diameter (3 inches in radius) is permitted on all other aircraft using aluminum-alloy blades. When it is necessary to reduce the diameter of a propeller from the specified value, the dash number following the blade drawing number will be changed accordingly. (Refer to T. O. 3H1-1-43).

e. In the event of an emergency, reduction in propeller diameter of any amount which will not seriously affect the performance of the aircraft involved is permitted for aluminum blades. Propellers which have had the diameter drastically reduced for emergency will be replaced with propellers of permissible diameter as soon as the latter are available. On multiengine aircraft using propellers with aluminum-alloy blades, a maximum difference of 2 inches is permitted in the diameter of the various installed propellers on the given aircraft.

NOTE Multiengine is to be interpreted as more than two engines.

f. Whenever a reduction of 3 inches or greater is made in the diameter of a nonfeathering propeller, the minimum and maximum blade angles will be set 1 degree higher for each 3 inches of diameter removed. This change is not necessary until full 3 inches are cut from the propeller diameter. For additional information on cut-down of propellers with aluminum-alloy blades, refer to T. O. 3H1-1-43.

g. Propellers using Curtiss hollow steel blades and which are under 13 feet in diameter, may be reduced a maximum of 3/4 inch (3/8 inch in radius), and blades in propellers with diameters greater than 13 feet and less than 15 feet may be reduced 1 inch (1/2 inch in radius). Any reduction beyond this point may open the hollow cavity in the blade. Aeroproducts blades may have a maximum of 1/4 inch of material removed from the tips, allowing the diameter to be reduced 1/2 inch. See applicable blade manuals for acceptable reductions.

h. In many instances, more than one model propeller is listed for use on a given aircraft. On twin engine or multiengine aircraft, it is not permissible to use different model propellers or governors on the aircraft, unless otherwise specified. Propellers and governors of one model only will be used on twin engine or multiengine aircraft, except as specified in notes 7, 12, 14, 16, 21, 22, and 23.

2. CURTISS ELECTRIC PROPELLERS.

a. The following table lists data pertaining to direction of rotation and plug positions of Curtiss proportional governors:

Rotation Plug Position	CW Rear	CCW Rear	CW Front	CCW Front
100008 type	100008	100008-1	100008-2	100008-3

b. The fourth column heading in Table II, "Cam No., Regulator No., Stop Ring, Range or Index," is applicable to the cam number in the case of Curtiss propellers. These cams determine the high, low, reverse, and feathering blade angles of Curtiss electric propellers. Propellers having the same blade angle settings may or may not have cams of the same part numbers.

3. HAMILTON STANDARD PROPELLERS.

a. The nominal diameter given in the table does not employ fractional dimensions. The actual diameter is never greater than that given in the table, but may be less by an amount smaller than 1 inch. For example, for a propeller assembly with an actual diameter of 10 feet, 1/8 inch, the table would show a nominal diameter of 10 feet, 1 inch. Propellers having the same blades installed in different series hubs may have different actual diameters and, where the difference is sufficiently great, different nominal diameters.

b. The term "range," as applied to hydromatic propellers, means the maximum and minimum blade angles which the propeller can attain, as determined by the dash part number of the high and low-pitch stops assembled in the dome. Care will be taken that stops are of the correct part number for the aircraft on which the propeller is to be used. Failure to use correct stops can cause serious reduction of the blade angle to which the constant-speed operation can be maintained which would result in malfunction in flight. Stops will not be set for lower angles than given by the dash part number of the low-pitch stop, or higher angles than given by the dash part number of the high-pitch stop. The end of the blade travel is determined by the cam roller striking the end of the cam slot, with resultant damage to these parts if stops are set at incorrect angles.

c. Early high and low-pitch stops carry two dash numbers, which give the high and low limits of the range. For example, high-pitch stop, part No. 52932-10-90, and low pitch stop, part No. 52933-10-90, were used in a 23E50 hub to obtain 10-90 range. Later production stops carry a single dash number; the number on the high-pitch stop gives the high angle end of the range, and the number on the low-pitch stop gives the low angle end of the range. In the preceding example, part No. 52932-90 has replaced part No. 52932-10-90, and part No. 52933-10 has replaced 52933-10-90. However, to provide greater interchangeability in stop rings of one part number T.O. 3H1-4-3 was revised to direct the removal of all dash numbers from the rings. Stop rings which have been modified in accordance with T.O. 3H1-4-3 are now identified by an index mark approximately 1/8 inch in length.

d. To obtain closer indexing, the fixed cams in propellers incorporating faired knee type cams are provided with two sets of holes for locating dowels in the barrel. Shifting between the two sets of holes permits indexing of the blade and cam gears for stops which correspond to one-half tooth space. To obtain the correct range, the proper stops must be used and the correct set of holes must be plugged to prevent use. The holes to be plugged for the propellers and ranges listed in Table II are as follows:

HUB	RANGE	PLUG HOLES MARKED
23E50-505	10-90	B
	14-94	A
	18-98	B
	22-102	A
	26-106	B

e. The term "Index" given in the fourth column of Table II, applies to Hamilton Standard counterweight propellers. This is the maximum angle the reference station of the blade can assume when the blade is in low rpm (high-pitch) position and is determined by locking pins or keys locking the blade bushing to the counterweight bracket.

f. In the table, blades with full length moulded chafing rings of old design cannot be used in hubs carrying dash numbers over 400. New design split rings are generally considered to be interchangeable in all hubs. For blade installation instructions and the limits of interchangeability, refer to T.O. 3H1-4-3.

g. In setting the blade angle of Hamilton Standard propellers, allowance must be made for the difference in the reference radius at which the angle is measured for different type hubs. The amount to be added to the nominal reference radius of 42 inches or 72 inches, as given in Table II, is shown in the following table. For example, in setting the angle of a 6167A-15 blade installed in a 2D30 hub, the angle will be measured at the 42 inch radius, while the angle of a 6477A-0 blade installed in a 23E50 hub will be measured at the 42 + 1/8 inch radius.

HUB	ADDITION TO NOMINAL REFERENCE RADIUS
2D30	0
12D40	7/16 inch
3D40	5/16 inch
23E50	1/8 inch
34G60	0.438 inch
43H60	0.531 inch
43E60	0.531 inch
54H60	0.875 inch

h. On aircraft using standard cam and faired knee cam propellers with different minimum angle settings, the same type hub should be installed on all engines of one aircraft. If, in an emergency, it is necessary to combine both types of propellers on the aircraft, the minimum angle of all propellers should be set as nearly identical as possible. This will ordinarily require raising the minimum angle used with faired knee cam propellers to that specified for standard cam propellers.

i. Hamilton Standard Propellers have been regrouped with the result that propeller equipment parts are now listed in new assembly numbers. A true

propeller assembly has been created, consisting of all the rotating parts with the exception of some spinner parts. The former hub assembly, which carried the model designation commonly but erroneously referred to as a propeller, has been discontinued, and its components, dome, barrel, low pitch stop assembly, etc, have been absorbed into the newly created propeller assembly. Also, the deicing assembly no longer exists as such if its components have been reassigned to different assemblies, as shown in the following charts. Similarly, the integral oil control and spinner and blade assemblies now have different components. Since this change affects only the new propellers listed in the charts, it will be necessary to continue to refer to the existing part or assembly numbers for other equipment in service. When replacing a propeller assembly of the earlier model designation with the new model propeller, all rotating parts of the deicing system installed on the earlier model shall be returned with removed propeller for overhaul. When replacing an integral oil control assembly with a control and brush pad assembly, the removed brush pad shall be returned with the integral oil control for overhaul.

4. AEROPRODUCTS PROPELLERS.

The term "Regulator No." in the fourth column of Table II applies to Aeroproducts propellers and gives the part number of the regulator specified for the given model propeller.

NOTES

1 -Any propeller listed may be used with either governor listed.

2 -Early C-46A and C-46F aircraft have the Hamilton Standard propeller installed. When installing this propeller, place blades in feathered position and set high-pitch stop in dome to 83 degrees. When installing dome on barrel, tap blade slightly toward low-pitch to mesh gears. Check blade angles by blade shank and barrel marks to insure that gears have meshed in proper relationship.

3 -Hydraulic fluid, Spec MIL-O-5606, may be used with integral oil controls incorporating the increased capacity auxiliary pump and motor assembly.

4 -Some Curtiss hollow steel blades, when installed in hubs, assume a location which does not permit the reference station of the blade to coincide with the propeller radius normally used for checking blade angles. This condition results from dimensional alterations in progressive hub and blade design changes. The following table indicates the radius which should be used for checking blade angles with the various hub blade combinations listed (refer to applicable manuals for complete data):

Blade	Hub	Blade Ref Station	Propeller Radius
744-6C2-0	C632S	42 inch	42-5/8 inch
1052-20C4	C644S-B300	72 inch	72-3/4 inch
1052-22C4-30	C644S-B500	72 inch	72-3/4 inch
1052-20C4	C634S-C400	72 inch	72-1/8 inch
1052-22C4-30	C634S-C400	72 inch	72-1/8 inch
1056-8C5	C735S-A18	72 inch	72 inch
1060-25C5-12	CT-735S-B	72 inch	72 inch
1060-20C5-42	CT-735S-B	72 inch	72 inch
1060-27C5-12	CT-735S-B	72 inch	72 inch
830-21C4-0	C634S-C400	54 inch	54-1/8 inch
830-26C4-0	C634S-C400	54 inch	54-1/8 inch

5 -All Curtiss governors, model 100008, are basically similar. Models with suffix "K" or later must be used in lieu of governors with prior suffix letters. The number preceding the letter suffix indicates direction of governor shaft rotation and connector plug position and must be considered when requisitioning the desired governor model. (Refer to paragraph 2. a.). On multiengine aircraft, all engines will be equipped with governors of the same model and letter suffix.

6 -A heavier counterweight cap, part No. S-8501, may be used on aircraft using propellers 2D30-29, -207, -209, -227, -233, and -235, containing counterweight cap, part No. 50290. This heavier cap is authorized only when the propeller is sluggish and after it has been determined that the sluggish operation is not caused by improper maintenance. When using counterweight cap, part No. S-8501, the propeller will be marked 2D30-237. This same cap can be used on 12D40-225 propellers.

7 -Hamilton Standard propeller double capacity governors, Models 4G8-G67M and 4G8-P67M, are interchangeable. Intermixing on the same aircraft is permissible.

8 -Some C-47 series aircraft are equipped with 23E50 propellers utilizing blade design No. 6353A-18 or R6353A-18. This installation was permitted when requested by using activities, and aircraft so equipped will be continued in service without change. Authorization to install this type blade on additional C-47 series aircraft will be permitted if supply of blades is sufficient to support additional aircraft. The following data will be used during build-up and installation: Stop ring range or index 18-98 degrees; blade reference station, 42 in; min. angle, 18 degrees; max. angle 88 degrees; fea. angle, 88 degrees.

9 -The synchronizer tachometer installed on various aircraft varies according to the engine governor drive pad ratio. These tachometers are calibrated to indicate synchronizer speed in terms of engine rpm. The following table lists the tachometers to be used on various aircraft:

AIRCRAFT	CURTISS PART NO.
B-50	108111-.984
VC118	121938-.964
C-121A	127353-.879
C-124A	129306-.956
C-124C	129306-.961

10 -Ratio is defined as governor rpm to propeller rpm.

11 -Minimum rpm setting for Aeroproducts A422-E2 propeller used on T-28A aircraft will be 1475, ± 25.

12 -Propellers, listed for C-121A aircraft, incorporate low pitch mechanical stops and replace model C634S-C418-830-21C4-0 after aircraft wiring changes are incorporated.

a. All propellers, Model C634S - C400 Series. listed for C-124A aircraft are interchangeable.

13 -The use of propellers with round tipped blades and propellers with square tipped blades on any one aircraft is permissible in emergency only, and provided the most stringent flight restriction is adhered to.

14 -The following is a list of integral oil control assemblies presently in use on various aircraft:

a. C-97 91669

b. C-119 88775

c. SA-16 89077, 542204

d. C-123B 86389

15 -When replacement power units are installed on Curtiss propellers, the power gear, adapter plate, and shims from the replaced power unit must be installed in the replacement power unit.

16 -The basic difference between propeller models 23E50-505 and 23E50-473 is outlined in paragraph 3.d., and intermixing on the aircraft is permissible. Flight characteristics of propeller models 24260-611 and 24260-619 are identical when installed on the aircraft; therefore, intermixing is permissible. Flight characteristics of propeller 43D50-301 and -325 are identical and intermixing is permissible. The basic difference is the -325 does not incorporate chaffing rings. The flight characteristics of propeller models 34G60-605, -607, -609 and -611 are identical and intermixing is permissible. The basic differences of the models are the -607 incorporates blade gear micro adjusting rings, and the -609 incorporates the new longer beefed-up fluid transfer tube assembly, and the -611 incorporates new dome cam roller needle bearing assemblies.

17 -To eliminate balancing difficulties, aluminum alloy propeller blades are currently being repaired and stock listed in two categories. At time of overhaul of blade assemblies, blades are balanced against a master balancer meeting new blade specifications. Blades meeting the specifications retain the original blade designation. Blades not meeting this specification will have the master drawing number identified by prefix letter "R" stamped on the blade butt. All "R" blades are mated, and the mate blade serial numbers are stenciled on the outside diameter of the blade butt. The mated set of blades is packaged and issued as a set and will not balance with other blades. When replacement blades are required, check the identification. When "R" blades are required, a complete set will be ordered. All other blades are interchangeable and may be requisitioned as required.

18 -The model 4G8-G67M-1 governor has the control ports marked "A" plugged, and are for use on the B-25 aircraft only.

19 -The 5AA22 constant speed control assembly used on the VC-121E aircraft differs from the 5U18 constant speed control in that it incorporates a separate feathering valve which by-passes the pilot valve and low pressure relief valve during the feathering operation. Thus, even if the pilot valve and/or the low pressure relief valve are seized, feathering can be accomplished.

20 -Synchronizer, part No. 165140, may be used only with the T-34-P5 engines. Synchronizer, part No. 162523, must be used with model CT735S-B308 series propeller only. Coordinator assembly, part No. 160046, must be used with T-34-P7WA and T-34-P9W engines equipped with fuel control assembly, part No. 411420AF1 or later.

21 - 2H17K3-48R, 2H17U3-48R, and 2H17AA3-48R blades which are applicable to model 23260 propellers have been deleted from Table II. These blades will be continued in service until the next depot overhaul at which time they will be condemned because of high-time and replaced with 2H17AC3-48R blades.

22 - The Hamilton Standard 5U18-1, -28, -35, -50, and -62 Governors are being modified to the 5U18-47 configuration during overhaul. The above governors are functionally interchangeable with the -47 and will be utilized in the event the -47 is not available.

23 - Flight characteristics of 23E50 propellers incorporating 6501A and 6507A blades are identical and intermixing on C-54 series aircraft is permissible. The basic difference is the 6501A blade is manufactured of HS-26 alloy and the 6507A blade of AMS-4130 alloy. Due to difference in alloy, the 6501A blades and the 6507A blades will not be intermixed in the same propeller assembly.

24 - The propeller diameter is 13 feet and would normally require blade angles be checked at the 42 inch station. However, due to the aerodynamic contour of the blade, the blade angles must be checked at the 72 inch station.

25 - A program to retrofit a majority of the C-124A aircraft with R4360-63A engines and C735S-A18 propellers began in September 1962. These aircraft will be equipped with propeller control transfer assemblies, part No. 168260, in lieu of slip ring housings and related conduit assemblies. These aircraft will require use of synchronizer tachometer, part No. 129306-. 961 and will be redesignated to C-124C.

26 - Some C-131B, D, and E Series Aircraft may still be equipped with Commercial Configuration propellers. These propellers were procured as "OFF-The-Shelf" items during initial procurement of aircraft and should be continued in service until due for overhaul. When due for overhaul, these propellers should be returned to WRAMA for modification to AF configuration and should be replaced with 43E60-539 or -565 propellers. When assembling newly overhauled propellers for C-131D aircraft, serial numbers 55-292, 55-293, 55-294, 55-297, 55-299, 55-301 and C-131E serial number 57-2552, blade cam, part number 79133-2, will be installed on number two blade. These aircraft are equipped with reverse indicating lights and require above cam in order for the lights to receive a ground when the propeller is in reverse. (This applies to field activities only.)

27 - On some propellers, metal blade heater sheaths are being superseded by rubber anti-abrasion strips. Intermixing of rubber anti-abrasion strips with metal sheaths on the same propeller is prohibited since the difference in weight will create a balance problem.

TABLE I

PROPELLERS FOR SERVICE AIRCRAFT-NONCONTROLLABLE

Aircraft	Initial Eng Installation	Hub Assy Part No.	Blade Drawing No.	Prop. Shaft Size No.	No. of Blades	Dia	Blade Angle Setting
OBSERVATION							
L-5B, C, E G	0-435-1 or 0-435-11	4162 or 8808 or 8808M	44K15005	No. 20 Spline	2	7 ft 1 in.	Fixed
O-1A(L-19A)	0-470-11		1A200FM9047	Flanged	2	7 ft 6 in.	Fixed

TABLE II

PROPELLERS AND GOVERNORS FOR SERVICE AIRCRAFT-CONTROLLABLE

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref
BOMBARDMENT (LIGHT)													
B-26B, C	R-2800-71 -79	23E50-473-6359A-18 -R6359A-18 23E50-505-6359A-18 -R6359A-18	26-106	42 in.	+28	+92	+92		4G8-G67M	1:1	2700	2700	See Notes 7, 17
B-26K	R-2800-52W	43E60-579-6895M-8	-17+103	42 in.	+30	+94	+94	-14	4U18-34	.964:1	2700	2800	See Note 17

B series CW
C " " CCW gov. pad

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TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
B-25 Series	R-2600-13	23E50-473-6359A-18	18-98	42 in.	+24	+90	+90		4G8-G67M-1	992:1	2580	2600	See Notes 7, 16, 17, 18
	-29	-R6359A-18 or 23E50-505-6359A-18							P67M-1				
	-29A	-R6359A-18											
	-33												
	-35												
B-50 Series	R-4360-35	C644S-B512-1052-22C4-30	158231	72 in.	+20.5	+57.3	+84.7	-20.3	124512	.984:1	2655	2700	SYN 154081 or 154084 PU 158227-2 or -4. See Notes 4, 9, 27
	-35B												
CARGO/TRANSPORT													
C-45H	R-985-AN-14B	22D30-313-6531A-15	5-88	42 in.	+13	+86	+86		4B2-1	1:1	2300	2300	See Note 17
		-R6531A-15											
C-46A, D	R-2800-51 -75	C543S-C102-814-3C3-18	154604-104.5-6.5	54 in.	+17	+47	+87		100008-2K	1:1	2700	2700	PU-154489-2 or 156035-2. See Notes 5, 15
C-46F, G	R-2800-51 -75	23E50-505-6491A-0 -R6491A-0 or 23E50-473-6491A-0 -R6491A-0	10-90	72 in.	+10	+84	+84		4G8-G67M	1:1	2700	2700	See Notes 7, 17

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
C-47, A	R-1830-92	23E50-473-6477A-0 -R6477A-0 or	10-90	42 in.	+16	+88	+88		4G8-G67M	.958:1	2590	2700	See Notes 7, 8, 16, 17
C-47B	R-1830-90C	23E50-505-6477A-0 -R6477A-0	10-90	42 in.	+16	+88	+88						
C-47D	R-1830-90D												
C-47E	R-2000-4	43D50-301-6863A-1 -R6863A-1 43D50-325-7033A-1	25-105	42 in.	+27	+89	+89		4G8-1	.958:1	2590	2700	See Notes 16, 17
EC-54, SC-54 C-54A C-54B, D, E, G, M	R-2000-4	23E50-473-6507A-0 -R6507A-0 -505- or 23E50-473-6501A-0 -R6501A-0 -505-	18-98	42 in.	+24	+93	+93		4G8-G67M -P67M	.958:1	2590	2700	See Notes 7, 16, 17, 23
C-97J	YT-34-P5	CT735S-B120-1060-20C5-42		72 in, See Chart VI					161857			11000	SYN 165140 Co-ordinator 152064 See Notes 4, 27
C97A-C C-97D HU-97	R-4360-65 R-4360-65 R-4360-59B	34G60-611-C7021C-8 or 34G60-611-C7021D-8	-22+92	72 in.	+18	+83	+83	-18	91669	2.11:1	2136	2700	See Notes 16, 17, 27 SYN 322080
KC-97E	R-4360-65	34G60-611-C7021C-8 or 34G60-611-C7021D-8	-22+92	72 in.	+18	+83	+83	-18	91669	2.11:1	2136	2700	See Notes 16, 17, 27 SYN 322080
KC-97F, G	R-4360-59B	34G60-611-C7021C-8 or 34G60-611-C7021D-8	-22+92	72 in.	+18	+83	+83	-18	91669	2.11:1	2136	2700	See Notes 16, 17, 27 SYN 322080

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
C117 C-117A	R-1830-92 R-1830-90C	23E50-505-6477A-0 -R6477A-0	10-90	42 in.	+16	+88	+88		4G8-G67M	.958:1	2590	2700	See Notes 7, 17
C-117B	R-1830-90D	23E50-505-6477A-0 -R6477A-0	10-90	42 in.	+16	+88	+ 88		4G8-G67M	.958:1	2590	2700	See Notes 7, 17
VC118	R-2800-52W	C632S-B306-744-6C2-0	116704-115.5-33.5-65	42 in.	+27	+62	+ 92.7	-18.4	124512	.964:1	2700	2800	SYN 154083 or 154086 PU-123442-8 See Notes 4, 9, 15
C-118A	R-2800-52W	43E60-497-6895B-8 or -R6895B-8 43E60-547-6895M-8 or -R6895M-8 43E60-573-6895N-8 -R6895N-8	-12 + 108	42 in.	+30	+96	+96	-8	5U18-57	.964:1	2700	2800	SYN 322080
VC-118A		43E60-535-6895B-8 or -R6895B-8 43E60-563-6895M-8 or R6895M-8 6895N-8 -R6895N-8	-12 + 108	42 in.	+30	+96	+96	-8	5U18-57	.964:1	2700	2800	SYN 322080 See Notes 17, 27
C-119C	R-4360-20WA -20WD	24260-611-2J17Y3-26R -619-2J17AE3-26R	-23 + 86	72 in.	+16	+83	+83	-21	88775	2.11:1	2420	2700	SYN 320400 See Note 16
C-119G, J	R-3350-89A	A644FN-C2-F40K1-198-18M	6502775	72 in.	+13	+ 85.3	+85.3	-15.5			2900	2900	
VC-121A	R-3350-75	C634S-C460-830-26C4-0		54 in.	+20.3		+90.3	-14.3 LPMS 17.1 ± 5 Reverse 13.3 ± 1	124512 Tel Light	.879:1		2800	SYN 154083 or 154086 PU-162225 See Notes 4, 9, 12, 15

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
C-121C	R3350-91 -93	43H60-395-6959B-0 -R6959B-0	-27 +93	72 in.	+14	+80	+80	-21	5U18-48	.857:1	2450	2900	SYN 322080 See Note 17
RC-121C, D and TC-121C, C-121G	R-3350-91 -93	43H60-395-6959B-0 -R6959B-0	-27 +93	72 in.	+14	+80	+80	-21	5U18-48	.857:1	2450	2900	SYN 322080 See Note 17
VC-121E	972TC-18	43H60-395-6959B-0 -R6959B-0	-27 +93	72 in.	+14	+80	+80	-21	5AA22-8	.857:1	2450	2900	SYN 322080 See Note 19
C123B, J	R-2800-99W	43E60-607-6917B-14 -R6917B-14 or 43E60-615-6917E-14 -R6917E-14	-26 +82	72 In.	+10	+80	+80	-24	86389	2.11:1	2155	2800	See Notes 17, 27
YC-124B	YT-34P1	CT735S-B2-1060-4C5-22		72 in.	+12		+87	-4.5	148108-1			11000	SYN 144933
C-124A	R-4360-20W or -20WA	C634S-C430-1052-22C4-30 C634S-C446-1052-22C4-30	158085	72 in.	+15		+86.3	-15	124512	.956:1	2580	2700	SYN 152458 or 162531 PU-162225 See Notes 4, 9, 12, 15, 25, 27
							LPMS 12.8 ±.5 Reverse Tel Light $8^{O} \pm 1^{O}$						
C-124C	R-4360-63A	C735S-A18-1056-8C-24	158181	72 in.	+17		+86.9	-16.9	124512	.961:1	2690	2800	SYN 152458 or 162531 PU-158159 See Notes 4, 9, 12, 15, 25, 27
							LPMS 14 ± .5 Reverse Tel Light $10^{O} \pm 1^{O}$						

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
LC-126A, B, C	R-755-11	2B20-329-6135A-15 -R6135A-15		42 in.	+10	+25			1A4-G5	1:1	2200	2200	See Note 17
C-130A, C-130A-2, C-130D, GC-130A, JC-130A, RC-130, NC-130	T56-A-9, -9A	A6341 FN-DIA (Hub and Blade 6506600) (Blade 6503162)	6505537	72 in.	See Chart VIII				6506362	13.5:1	1016	13820	ATE-D1
C-130B VC-130V HC-130B	T56-A-7	54H60-63-A7111B-2 -A7111C-2 -RA7111C-2	-14 +101	42 in.	+21	+92.5		-7+1°	550050 or 577888	3.182:1	1020	13820	SYN 577419 or 577457 or 588584
C-130E	T56-A-7	54H60-91-A7111B-2 -A7111C-2 -RA7111C-2	-14 +101	42 in.	+23.3	+92.5		-7+1°	550050 or 577888	3.182:1	1020	13820	
C-131A VC-131A	R-2800-99W R-2800-99W	23260-303-2H17AC3-48R	-28 +92	72 in.	+14	+80	+80	-25	5U18-47	.964:1	2700	2800	See Note 22
C-131B, D, E	R-2800-103W	43E60-341-6895B-8 -R6895B-8 or 43E60-539-6895M-8 -R6895M-8 or 43E60-565-6895N-8 -R6895N-8	-12 +108	42 in.	+30	+96	+96	-8	5U18-47	.964:1	2700	2800	See Notes 17, 22, 26, 27
C-133A C133B	T34-P7WA T-34-P9W	CT735S-B308-1060-25C5-12 CT735S-B308-1060-25C5-12		72 in.	See Chart VI				161857			11000	SYN 162523 Coordinator 160046. See Notes 4, 20, 27

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High RPM Setting	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
UTILITY													
HU-16A B	R1820-76B	43D50-611-7007B-7 43D50-615-7007C-7	-21 +91	42 in.	+16	+89	+89	-12	89077	1.48:1	2670	2700	See Chart V
		or 43D50-639-7007E-7 -7007F-7							or 542204	1.48:1	2670	2700	See Note 27
L-17A, B, C	0-470-7 0-470-7A 0-470-7B	HC12X20-7B-8428 HC12X20-7B-8433 HC12X20-7C-8428 HC12X20-7C-8433	Cyl C-111-7	30 in.	+12.5	+22.5						2600	
U-6A (L-20)	R-985-AN3 -AN1	2D30-237-6101A18 2D30-237-R6101A-18		42 in.	+10.5	+24			1A2-G5 or	1:1	2300	2300	See Notes 1, 17
		2D30-237-6101A20 2D30-237-R6101A-20		42 in.	+11.5	+24			1A2-A5				
		2D30-301-6101A-18		42 in.	+10.5	+24			4A2-1				
YL-24	GO-435-17	HC12X20-8C-9333	Cyl C-111-8	30 in.	+17	+29						3400	See Note
U-1A	R1340-59	3D40-277-6631A-9 -R6631A-9		42 in.	+19	+33			1A2-G5			2250	17
		23D40-311-7035A-9		42 in.	+18.5	+34.5			4B2-1				
U-3A	O-470-M	HC-82XF-2B/8433-4		30 in.	+12.5	+22	+82		0750101-60	1:1	2600	2600	
U-3B	IO-470-D	HC-82XF-2B/8433-4		30 in.	+13.5	+22	+82		0850101-59	1:1	2625	2625	
U-4A	GO-480-G1B6	HC-83X20-2C-8433C		30 in.	+16		+84		210245			3400	
U-4B	GSO-480-A1A6	HC-83X20-2C-9333-C3		30 in.	+18.0		+83.5		210245			3400	
U-10A, B (L-28A, B)	GO-480-G1D6	HC-B3Z20-1/10151C-5		30 in.	+11.8	+30.8			B-3-1	.801:1	2723	3400	
YU-1	R1340-59	3D40-277-6631A-9 -R6631A-9		42 in.	+19	+33			1A2-G5			2250	See Note 17

TABLE II (CONTD)

Aircraft	Initial Eng Installation	Prop Assy Hub Blade	Cam No., Reg No., Stop Ring Range or Index	Blade Ref Sta	Min	Max	Fea	Rev Neg	Cont Gov or Alt	Gov Alt or Int Oil Cont Drive Ratio	Gov or Synch High	Eng Take-Off RPM	Misc Power Unit or Synch P/No. Note Ref.
TRAINERS													
T-6G	R-1340-AN-1	12D40-305-6101A-12 -R6101A-12	28	42 in.	+13	+28			1M12-G	1.144:1	2574	2250	See Note 17
		12D40-305-6101A-20 -R6101A-20	30	42 in.	+15	+30							
T-28A	R-1300-1A R-1300-1B	A422-E2-H20H-162-40M5	6502504	42 in.	+24	+64					2550	2550	See Note 11
T-28D	R-1820-56S	33D50-119-7133A-18S		42 in.	+21.5	+54.5			4G10-3	1:1	2600	2600	See Note 17
	R-1820-86	43D50-313-6951A-18		42 in.	+19.5	+52.5			4G10-3	1:1	2700	2700	
T-29A	R-2800-97	23260-303-2H17AC3-48R	-28 +92	72 in.	+14	+80	+80	-25	5U18-47	.964:1	2700	2800	See Notes 21, 22
T-29B	R-2800-97	43E60-533-6903F-24 -R6903F-24	-32 +88	72 in.	+14	+78	+78	-26	5U18-47	.964:1	2700	2800	See Notes 17, 22, 24 27
T-29C, D	R-2800-99W	43E60-533-6903F-24 -R6903F-24											
T-34A	0-470-13A	278-101-278-207-88 or 278-102-278-208-84		33 in.	+11.5	+32.5			278-220 or 278-222			2600	
					+12.5	+33.5							

CHART I

Aircraft	Hub Assy Plus	Blade Assy Plus	Blade Slip Ring Assy Plus	Rotating Parts of Deicing Assy Equals	Prop Assy	Deicing & Cont Brush Bracket Assy	Control & Brush Pad Assy See Chart III	Drive Bracket Assy	Spinner Assy See Chart IV
C-131A, VC-131A, T-29A	23260-45	2H17AC3-48R	81925-3	79005 or 525823	23260-303	88842 or 507835	NA	NA	NA

NA-Not Applicable

CHART II

Aircraft	Prop Assy Plus	Blade Assy Plus	Blade Slip Ring Assy Plus	Rotating Parts of Deicing Assy Equals	Prop Assy	Deicing & Cont Brush Bracket Assy	Control & Brush Pad Assy See Chart III	Drive Bracket Assy	Spinner Assy See Chart IV
C-118	43E60-351	6895B-8	NA	79005 or 525823	43E60-497	88870	NA	NA	525694
	43E60-497	6895M-8	NA	79005 or 525823	43E60-547	88870	NA	NA	525694
T-29B, C, D	43E60-511S	6903F-24	NA	79005 or 525823	43E60-533	88842 or 507835	NA	NA	NA
C-119C	24260-603	B2J17Y3-26R	80501	79620	24260-611	NA	88775	522017	NA
	24260-611	2J17AE3-26R	80501	79620	24260-619	NA	88775	522017	NA
C-123	43E60-603	6917B-14	NA	83294	43E60-607	80213	86389	522017	NA
	43E60-607	6917E-14	NA	83294	43E60-615	80213	86389	522017	NA
HU-16A, B	43D50-603	7007B	NA	80170	43D50-611	NA	89077	522014	NA
	43D50-611	7007C-7	NA	80170	43D50-615	NA	89077	522014	NA
	43D50-615	7007E-7	NA	80170	43D50-639	NA	89077	522014	NA
T/RC-121C, D, C-121G, VC-121E	43H60-383	6959B-0	NA	97700	43H60-395	502412	NA	NA	546350
RC-121C, D	43H60-383	6959B-0	NA	97700	43H60-395	502412	NA	NA	546350

CHART II (CONTD)

Aircraft	Prop Assy	Plus	Blade Assy	Plus	Blade Slip Ring Assy	Plus	Rotating Parts of Deicing Assy	Equals	Prop Assy	Deicing & Cont Brush Bracket Assy	Control & Brush Pad Assy See Chart III	Drive Bracket Assy	Spinner Assy See Chart IV
C-121C	43H60-367		6959B-0		NA		97700		43H60-395	502412	NA	NA	546350
C-131B	43E60-301		6895B-8		NA		79005 or 525823		43E60-341	88870	NA	NA	NA
	43E60-341		6895M-8		NA		79005 or 525823		43E60-539	88870	NA	NA	NA
	43E60-539		6895N-8		NA		79005 or 525823		43E60-565	88870	NA	NA	NA
C-131D, E	43E60-325		6895B-8		NA		79005 or 525823		43E60-341	88870	NA	NA	NA
	43E60-341		6895M-8		NA		79005 or 525823		43E60-539	88870	NA	NA	NA
	43E60-539		6895N-8		NA		79005 or 525823		43E60-565	88870	NA	NA	NA
C-130B	54H60-39		A7111B-2		525807		537044		54H60-63	NA	550050	543641	535247
C-130E	54H60-63		A7111B-2		525807		554631		54H60-91	NA	550050	543641	557615

NA - Not applicable.

CHART III CONTROL & BRUSH PAD ASSEMBLIES

Cont & Brush Pad Assy	Equals	New Pump Assy	Plus	Head Assy	Plus	Brush Bracket Assy	Equals	Old IOC Assy	Plus	Brush Bracket Assy	Plus	Cover Plate	Minus	Drive Bracket Assy
86389		86388-2		322128		80213		83790 *(81811)		80213		73775		**522017
89619 Replaced by 91669		88712		322116 or 322478		80327		83153 *(79567)		80327		73775 supsd by 514154		**522017
88775		88776		322116 or 322478		80327		83186 *(80416)		80327		73775		**522017
89077 Sup/By 542204		89078-2		322116 or 322478		80213		83185 *(80415)		80213		73775		**522014

** All components of control and brush pad assemblies, including drive bracket assemblies, will accompany the control and brush pad assembly for overhaul.

* Comparable old IOC Model Numbers before the incorporation of the increased capacity auxiliary pump.

CHART IV - SPINNER ASSEMBLIES

Become part of Prop Assy

New Spinner Assy	Equals	Old Spinner Assy	Less	Dome Cap	Dome Cap Screw	Cotter Pin	*Attaching Parts
509300		97197		501685	82161	AN380-1-1	Applies
525694		511784		501685	82161	AN380-1-1	Applies
535247		NA		Less	537297	537299 (Ring Retaining)	NA
546350		510866		524719	82161	AN380-1-1	Applies

* Attaching Parts - 77513 Washer, 77509 Bolt, AN380-3-5 Pin, AN960-816 Washer and 50095 Nut.
NA - Not Applicable.

CHART V - BLADE ASSEMBLIES

NOTE: Steel Blade Assemblies remain the same and retain existing Assembly Numbers

New Blade Assy	Equals	Old Blade Assy	Plus	Cam Mount	Plus	Heater Assy	Plus	Deicing Trough	Plus	Feed Shoe
6601B-7		6601A-7		74858		78212		NA		NA
7007B-7		7007A-7		74858		78212		NA		NA
7007C-7		7007B-7		74858	Sheath	513347 and 510817-2		NA		NA
7007E-7		7007C-7		74858	Sheath	538760 and 524761		NA		NA
7007F-7		7007E-7		74858	Strip	538760 and 83643		NA		NA
6895B-8		6895A-8		78309		78932		NA		NA
6895M-8		6895B-8		78308	Sheath	548808 and 518078		NA		NA
6895N-8		6895M-8		78308	Strip	548808 and 83643		NA		NA
**6895M-20		6895B-8		78308	Sheath	548808 and 518078		NA		NA
6903B-0-S		6903A-0		78131		NA		78130		74467
*6903F-24		6903B-0-S		78308	Sheath Strip	548808 and 518078 or 83643		NA		NA
6917B-14		6917A-14		78308		83075		NA		NA
6917E-14		6917B-14		78308	Sheath Strip	548809 and 518078 or 83643		NA		NA
6959B-0		6959A-0		97724		NA		97723		74467
A7111B-2		A7081B-2		NA	Sheath	537232 and 537758		NA		NA
A7111C-2		A7111B-2		NA	Strip	537232 and 83643		NA		NA
C7021C-8		7021B-8		Fairing 521329	Sheath	518081 and 318078-1		NA		NA
C7021D-8		C7021C-8		Fairing 521329	Sheath Strip	538761 and 518078-1 or 83643		NA		NA

NA - Not Applicable
*This blade has been reduced 12 inches from original diameter
** This blade has been reduced 10 inches from original diameter

CHART VI - ANGLE SETTINGS FOR TURBINE ENGINE PROPELLERS (CURTISS-WRIGHT)

Propeller Assy	Inc Pitch	Nor Fea	Air Start	Flight Idle	Beta Tel Light	Normal-izing	Mechani-cal Low Pitch Stop	Rev	Aux Fea	Flight Low Pitch	Negative Torque Control
CT735S-B308	93.0°	86.5°	74°	12.5°	10.5°	10°	8.5°	-9.2°	91°		
CT735S-B120		83.0	71.0	6.8				-16.0	87.5	23.0	8.8

CHART VII - ANGLE SETTING FOR TURBINE ENGINE PROPELLERS (HAMILTON STANDARD)

Control Setting (Switches and Mechanical Setting in the Control)				
	Low Ang	Fea Ang	Rev Ang	
54H60-63	+21	+92.5	-7 +1°	Maximum Blade Angle Limits with Assembled Index: -14 to +101
54H60-91	+23.3	+92.5	-7 +1°	

CHART VIII - ANGLE SETTING FOR TURBINE ENGINE PROPELLER (AEROPRODUCTS)

Propeller Assy	Flight Idle	Ground Idle	Feather	Reverse
A6341FN-DIA	8.0	4.0	82.0	15.5

END