

Time Between Overhaul Periods (TBO) - 33580M

1. PLANNING INFORMATION

A. Effectivity

Owners and Operators of Aircraft Using Woodward Propeller Governors, Pumps, Auto Feather Valves, and Speed Signal Generators.

Aircraft Service Facilities and Certificated Governor Repair Stations.

Airframe Manufacturers.

B. Concurrent Requirements

None.

C. Reason

To provide Recommended Time Between Overhaul Periods (TBO) for Woodward Propeller Governors, Pumps, Auto Feather Valves, and Speed Signal Generators.

D. Description

Wear rates of governor assemblies and accessories will vary with operating conditions. The listed TBOs are based on the following assumptions:

1. Continuous operation with a minimum of 10 hours per month.
2. Engine maintenance performed as specified by the engine and airframe manufacturers.
3. The unit has not been subjected to sudden stoppage, lightning strike, or oil contamination (Overhaul is required at any time the unit is subjected to sudden stoppage, lightning strike, or contaminated oil.).

Exceptions to specified TBO:

1. Aircraft engaged in crop dusting or other chemical application flying should reduce the unit TBO to match the percent of reduction in the recommended engine TBO.

2. The recommended calendar time limit is 6 years for units not in continuous service with a minimum of 120 hours per year. For units in continuous service with a minimum of 120 hours per year, the unit can be operated to the recommended TBO in hours provided the following inspections and conditions are met.
 - A. All Airworthiness Directives, Service Bulletins and Service Letters have been complied with.
 - B. Unit is free from oil leaks.
 - C. Unit has no visible physical damage which would include cracks, corrosion, etc.
 - D. There has been no malfunction in the operation of the unit.
 - E. There has been no 6 month period when the unit was not operated for a minimum of 10 hours.
3. Governors and accessories listed below might exceed the Woodward recommended Time Between Overhaul (TBO) if they are maintained in accordance with an "On Condition" or "Condition Monitored" system approved by the U.S. Federal Aviation Administration or the Canadian Department of Transportation. These federally approved maintenance monitoring methods become an alternate to the manufacturer's recommended Time Between Overhaul. When such governors are returned for servicing on an Investigate and Repair As Necessary (IRAN) basis the customer must specify the Time Since New (TSN) or Time Since Overhaul (TSO). Cooperating with the above approved maintenance methods causes Woodward to "return to service" IRAN governors with accrued hours in excess of Woodward's recommended Time Between Overhaul.

E. Compliance

Not applicable.

F. Approval

Technical aspects of this service bulletin are FAA approved.

G. Manpower

No additional man hours required if accomplished during routine assembly/disassembly.

H. Weight and Balance

Not affected.

I. Electrical Load Data

Not affected.

J. Software Accomplishment Summary

Not applicable.

K. References

None.

L. Other Publications Affected

None.

M. Interchangeability or Intermixability of Parts

Not applicable.

2. MATERIAL INFORMATION

A. Material - Price and Availability

For parts required at overhaul and pricing information please contact:

Woodward Aircraft Engine Systems
One Woodward Way
P.O. Box 405
Rockton, IL 61072-0405
USA

Telephone: (815) 624-1819

Facsimile: (815) 624-1926

-----OR-----

Woodward Aircraft Engine Systems
5 Shawfarm Road
Prestwick, Ayrshire KA9 2TR
SCOTLAND, UK

Telephone: 44-1292-677631

Facsimile: 44-1292-474231

B. Industry Support Information

None.

C. Material Necessary for Each Aircraft/Engine/Component

See Material - Price and Availability

D. Material Necessary for Each Spare

Not applicable.

E. Reidentified Parts

Not applicable.

F. Tooling - Price and Availability

Not applicable.

3. RECOMMENDATIONS

- (1) Recommended Time Between Overhaul (TBO) for Woodward Propeller Governors, Pumps, Auto Feather Valves, and Speed Signal Generators are the same as recommended TBO of engine on which unit is installed except for units listed in the applicable Time Between Overhaul Table.

Reciprocating Engine Governor Time Between Overhaul Table

Governor	TBO
210582	500 Hours
210692	500 Hours
210920	500 Hours
210921	500 Hours

Turboprop Primary Governor Time Between Overhaul Table

Governor	TBO
A210765	2000 Hours
210492	3500 Hours
210508	3500 Hours
210527	3500 Hours
210528	3500 Hours

Turboprop Primary Governor Time Between Overhaul Table (Continued)

Governor	TBO
210537	3500 Hours
210538	3500 Hours
210540	3500 Hours
210541	3500 Hours
210542	3500 Hours
210558	3500 Hours
210560	3500 Hours
210561	3500 Hours
210563	3500 Hours
210564	3500 Hours
210570	3500 Hours
210581	3500 Hours
210600	3500 Hours
210735	3500 Hours
210736	3500 Hours
210737	3500 Hours
210738	3500 Hours
210739	3500 Hours
210741	3500 Hours
210742	3500 Hours
210743	3500 Hours
210744	3500 Hours
210746	3500 Hours
210749	3500 Hours
210939	3500 Hours
210940	3500 Hours
8210-100	3500 Hours
8210-101	3500 Hours
8210-103	2000 Hours
8210-104	3500 Hours

Turboprop Primary Governor Time Between Overhaul Table (Continued)

Governor	TBO
8210-108	3500 Hours
8210-109	3500 Hours
8210-110	3500 Hours
8210-112	3500 Hours
8210-115	3500 Hours
8210-121	6500 Hours
8210-260	3500 Hours
8210-261	3500 Hours
8210-262	3500 Hours
8210-263	3500 Hours
8210-264	3500 Hours
8210-265	2000 Hours
8210-300	2000 Hours

Turboprop Reversing Type Primary Governor Time Between Overhaul Table

Governor	TBO
210544	3500 Hours
210547	3500 Hours
210549	3500 Hours
210557	3500 Hours
210559	3500 Hours
210566	3500 Hours
210567	3500 Hours
210568	3500 Hours
210569	3500 Hours
210574	4000 Hours
210575	4000 Hours
210576	4000 Hours
210577	3500 Hours

Turboprop Reversing Type Primary Governor Time Between Overhaul Table (Continued)

Governor	TBO
210578	4000 Hours
210589	4000 Hours
210599	4000 Hours
210935	4000 Hours
Except those manufactured or factory remanufactured prior to February 1973 - TBO 2200 Hours	

Turboprop Propeller Governor with Pneumatic Overspeed Limiter (Airbleed Governor) Time Between Overhaul Table

Governor	TBO
8210-002	4500 Hours
8210-003	4500 Hours
8210-004	4500 Hours
8210-006	4500 Hours
8210-007	4500 Hours
8210-008	2000 Hours
8210-009	2000 Hours
8210-018	2000 Hours
8210-020	2000 Hours
8210-021	2000 Hours
8210-024	4500 Hours
8210-025	4500 Hours
8210-027	4500 Hours
8210-029	4500 Hours
8210-033	2000 Hours
8210-034	4500 Hours
8210-035	4500 Hours
8210-037	4500 Hours
8210-041 ("A" Change or later)	3500 Hours
8210-042 (Prior to "A" change)	2000 Hours
8210-042 ("A" Change or later)	3500 Hours

Turboprop Propeller Governor with Pneumatic Overspeed Limiter (Airbleed Governor)
Time Between Overhaul Table (Continued)

Governor	TBO
8210-043 ("A" Change or later)	3500 Hours
8210-046	4500 Hours
8210-051	2500 Hours
8210-052	2500 Hours
8210-053	2500 Hours
8210-054	2500 Hours
8210-124	4500 Hours
8210-133	4500 Hours
8210-134	4500 Hours
8210-135	4500 Hours
8210-137	2500 Hours
8210-140	2000 Hours
8210-187	2500 Hours
8210-188	2500 Hours
8210-189	2500 Hours
8210-190	2500 Hours
8210-191	2500 Hours
8210-192	2500 Hours
8210-198	2500 Hours
8210-199	2500 Hours
8210-209	4500 Hours
8210-212	4500 Hours
8210-310	4500 Hours
8210-388	2500 Hours
8210-389	2500 Hours
8210-391	2500 Hours
8210-392	2500 Hours
8210-393	2500 Hours
8210-398	2500 Hours

Turboprop Propeller Governor with Pneumatic Overspeed Limiter (Airbleed Governor)
Time Between Overhaul Table (Continued)

Governor	TBO
8210-399	2500 Hours
8210-400	2500 Hours
8210-401	2500 Hours
8210-402	2500 Hours
8210-403	2500 Hours
8210-404	2500 Hours
8210-406	2500 Hours
8210-407	2500 Hours
8210-408	2500 Hours
8210-409	2500 Hours
8210-410	2500 Hours
8210-411	2500 Hours

Turboprop Overspeed Governor Time Between Overhaul Table

Governor	TBO
210507	6500 Hours
210509	6500 Hours
210510	6500 Hours
210536	6500 Hours
210588	6500 Hours
210590	6500 Hours
210598	6500 Hours
210610	6500 Hours
210612	6500 Hours
210613	6500 Hours
210614	6500 Hours
210615	6500 Hours
210616	6500 Hours
210618	3500 Hours

Turboprop Overspeed Governor Time Between Overhaul Table (Continued)

Governor	TBO
210620	6500 Hours
210621	3500 Hours
210622	6500 Hours
210623	6500 Hours
210624	6500 Hours
210625	6500 Hours
210626	6500 Hours
210627	6500 Hours
210628	6500 Hours
210630	6500 Hours
210631	6500 Hours
210632	6500 Hours
210634	6500 Hours
210638	6500 Hours
210639	6500 Hours
210640	6500 Hours
210641	2500 Hours
210642	2500 Hours
210643	6500 Hours
210651	6500 Hours
210941	6500 Hours
210949	6500 Hours
210950	6500 Hours
210951	6500 Hours
210952	6500 Hours
210953	6500 Hours
210954	6500 Hours
210957	6500 Hours
210958	6500 Hours
210960	6500 Hours

Turboprop Overspeed Governor Time Between Overhaul Table (Continued)

Governor	TBO
210961	6500 Hours
210962	6500 Hours
210963	6500 Hours
8210-011	3000 Hours
8210-013	3000 Hours
8210-060	7500 Hours
8210-061	7500 Hours
8210-063	3000 Hours
8210-068	7500 Hours
8210-085	3000 Hours
8210-091	7500 Hours
8210-093	7500 Hours
8210-150	3000 Hours
8210-151	3000 Hours
8210-152	3000 Hours
8210-153	3000 Hours
8210-160	7500 Hours
8210-161	7500 Hours
8210-162	3000 Hours
8210-163	3000 Hours
8210-164	7500 Hours
8210-167	7500 Hours
8210-168	7500 Hours
8210-172	3000 Hours
8210-251	7500 Hours
8210-290	7500 Hours

Auto Feather Valve Time Between Overhaul Period Table

Auto Feather Valve	TBO
8905-002	4500 Hours
8905-004	4500 Hours
8905-006	4500 Hours

Pump Time Between Overhaul Table

Pump	TBO
8210-076	3000 Hours
8210-077	1500 Hours
8210-079	3000 Hours
8210-092	7500 Hours
8210-094	7500 Hours
8210-096	7500 Hours
8210-176	3000 Hours
8210-177	1500 Hours
8210-178	3000 Hours
8210-179	3000 Hours
8210-180	3000 Hours
8210-181	7500 Hours
8210-183	7500 Hours
8210-184	7500 Hours
8210-250	7500 Hours
8210-286	7500 Hours
8210-305	3000 Hours
8210-306	3000 Hours
8210-307	3000 Hours
8210-308	7500 Hours
8210-309	7500 Hours