

1. SCOPE

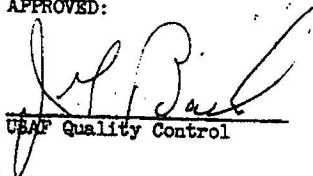
1.1 Purpose.- The purpose of this specification is to authorize the use of reconditioned parts and provide reconditioning instructions for Type E-9 electric tachometer generators 655G-01, 677G-01, and 677G-02 for use on Model C-45G and C-45H aircraft.

1.2 Application.- All reconditioning operations and repairs covered by this specification may be accomplished where required without further authorization. Repairs not authorized by this specification cannot be performed without further authorization.

1.3 List of Pages and Revisions.- This specification consists of the pages listed below. An asterisk (*) denotes the pages revised by the current revision.

<u>Page</u>	<u>Date</u>	<u>Description of Revision</u>	<u>Serial Effectivity</u>
1	6-3-53		
2	6-3-53		
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APPROVED:


 USAF Quality Control

WRITTEN BY <i>J. Paul</i>	DATE ISSUED 6-3-53	OVERHAUL SPECIFICATION TACHOMETER GENERATOR TYPE E-9 - MODEL C-45G AND C-45H		
PROJECT ENGINEER <i>J. Paul</i>				
APPROVAL <i>J. Paul</i>	DATE REVISED	Beech Aircraft CORPORATION Wichita 1, Kansas	OVERHAUL SPECIFICATION NO. 9115	PAGE 1
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2. APPLICABLE PUBLICATIONS

2.1 Beech.

OS 7002 Cleaning Procedures for Reconditioned Aircraft
 OS 7003 Air Frame and Control Antifriction Bearings
 OS 7008 General Acceptable Quality Standards

2.2 Technical Orders. - Compliance with this specification constitutes compliance with technical orders listed below:

05-5E-1 Operation, Service, and Overhaul Type E-9
 Tachometer Generators, dated December 4, 1945

3. REQUIREMENTS

3.1 Parts Involved:

3.1.1 Parts Not Used. - None

3.1.2 Parts to be Reconditioned. - The following parts are to be reconditioned in accordance with the instructions contained herein. "Reconditioned" means the disassembly, cleaning, inspection and correction of discrepancies, repair and/or replacement of components, and modifications to incorporate changes in accordance with applicable engineering drawings to assure an operationally safe and serviceable aircraft.

Kollsman Type 655G-01, 677G-01, and 677G-02 tachometer generator

3.1.3 Parts to be New. - None

3.2 Cause for Rejection. - The specific conditions listed below as well as damage or wear which cannot be corrected by one or more of the authorized repairs listed in Paragraph 3.4 of this specification is cause for rejection.

(a) Roughness of bearings, rollers, and balls.

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PROJECT ENGINEER <i>E. J. [unclear]</i>	DATE REVISED			
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3.2 Cause for Rejection.- (Continued)

- (b) Pitted or flaked raceways.
- (c) Chipped or cracked magnet.
- (d) Grounded or shorted stator coils.

3.3 Reconditioning Operations:

3.3.1 Kollsman Type 655G-01, 677G-01, and 677G-02 Tachometer Generator.-

- (a) Disassemble generator.
- (b) Clean in accordance with OS 7002.
- (c) Inspect all parts for nonrepairable conditions.
- (d) Recondition bearings in accordance with OS 7003.
- (e) Repair as necessary as authorized in Paragraph 3.4 of this specification.
- (f) Inspect magnet closely for cracks and chipped edges.
- (g) Check stator coils for probable short or open windings with an ohmmeter. The resistance across any 2 leads should be approximately 22.9 ohms.
- (h) Check stator for insulation breakdown by applying 500 volts at a commercial frequency for a period of 1 minute between any lead and stator housing.
- (i) Assemble generator, incorporating new parts as required.
- (j) Connect generator to driving mechanism. Connect a load to the three terminals of the generator, consisting of three 40-ohm y-connected resistances. At a speed of 1250 rpm measure voltage across each pair of terminals. No one of the three voltages should be more than 21 volts.
- (k) Connect a load to three terminals of the generator of three 20-ohm y-connected resistances. At a speed of 300 rpm measure the voltage across each pair of terminals. No one of the three voltages should be less than 3.5 volts.

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3.4 Authorized Repairs:

3.4.1 Kollsman Type 655G-01, 677G-01, and 677G-02 Tachometer Generator.

- (a) Scrap and replace magnet that is chipped or cracked.
- (b) Scrap and replace open or shorted stator coils.
- (c) Scrap and replace rough or pitted bearings.
- (d) Chase threads to clean.
- (e) Replace damaged or unserviceable parts with new or serviceable parts. Replace oil seals.
- (f) Scrap and replace connector housing if badly damaged.

4. INSPECTION

4.1 General. - The generator will be inspected to the requirements of this specification and the general acceptable quality standards of Overhaul Specification 7008.

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ASSEMBLY PARTS LIST

Type E-9 Generator Assembly - Kollsman Type 655G-01

<u>Part No.</u>	<u>Part Name</u>	<u>Qty.</u> <u>Req.</u>
655G-01	Generator Assembly	1
655G-2	Cover, rear	1
** 377G-16	Bearing, ball	1
** 377G-34	Shaft, magnet	1
** 377G-3C	Magnet (with X-378 Insert)	1
** 377G-901	Stator Coil Assembly	1
** 377G-902*	Stator Lamination Assembly	1
** 377G-8*	Housing, stator	1
** 377G-14*	Insulator, stator lamina.	1
** 377G-13*	Lamination, stator	2
** 377G-19*	Sheet, insulating	80
** 377G-21*	Coil, stator	1
** 377G-17*	Wedge	24
** 377G-26*	Insulator, coil lead wire	12
** 377G-22*	Wire, lead (13 in. in length)	22
** 377G-23*	Covering, lead wire (yellow) (6 in. in length)	3
** 377G-24*	Covering, lead wire (green) (6 in. in length)	1
** 377G-25*	Covering, lead wire (black) (6 in. in length)	1
*** 655G-1	Cover, front	1
** PL-6-CD	Lockwasher	1
** 377G-27	Screw, cover	6
** 377G-12	Screw, cover	6
** 377G-20	Seal, lead	1
** 377G-18	Bearing, ball	1
** 379G-12	Nut, bearing clamp	1
** 377G-9	Retainer, bearing	1
** F.H.-207-B	Screw, bearing retainer	1
655G-61	Plate, name	3
PD-0004	Screw, name plate drive	1
655G-7	Shaft, drive	2
548G-6	Gasket	1
548G-803	Seal Assembly, oil	1
548G-3*	Plate, retainer	1
548G-4*	Bellows	1
548G-5*	Ring, oil seal	1
KR-2B	Lockwasher	1
F.F.H. 209	Screw	4
** AN-3102-148-1P	Electric Conn. Receptacle	4
** KL-4B-N	Lockwasher	1
** F.F.H. 409-N	Screw	4

* We do not recommend the purchase of the parts marked with asterisks, either because it is not economical to repair, because it is not possible to successfully salvage the other parts of the assembly, or because a special jig is required for assembly.

** Parts common to assembly units 677G-01, 677G-02 and 655G-01.

*** Parts common to assembly units 677G-01 and 655G-01.

PARTS LIST FOR FIGURE 1

WRITTEN BY <i>F.H. Cooper</i>	DATE ISSUED 6-3-53	OVERHAUL SPECIFICATION TACHOMETER GENERATOR TYPE E-9 - MODEL C-45G AND C-45H		
PROJECT ENGINEER <i>F.H. Cooper</i>	DATE REVISED			
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ASSEMBLY PARTS LIST

Type E-9 Generator Assembly - Kohlsman Type 677G-01

Part No.	Part Name	Qty. Req.
677G-01	Generator Assembly	1
* 377G-904B	Cover Assembly, rear	1
* 377G-904.1	Assembly for Mach. Rear Cover & Clamp	1
* 377G-42*	Cover, rear	1
* 377G-43*	Spacer	1
* 377G-30*	Clamp	2
* PL-5/16-CD	Lockwasher, clamp bolt	1
* AN-60-5-16	Bolt, clamp	2
* 377G-36B	Washer, outer	2
* 377G-32B	Washer, corrugated	1
* 377G-36B	Washer, outer	1
* 377G-37B	Retainer, spring	1
* 377G-39B	Spring, retainer	1
* 377G-5C	Shaft, drive	1
** 377G-34	Shaft, magnet	1
** 377G-16	Bearing, ball	1
** 377G-3C	Magnet	1
** 377G-901	Coil Assembly, stator	1
** 377G-902*	Lamination Assembly, stator	1
** 377G-8*	Housing, stator	1
** 377G-14*	Insulator, stator lamina	1
** 377G-13*	Lamination, stator	1
** 377G-14*	Insulator, stator lamina	90
** 377G-19*	Sheet, insulating	1
** 377G-21*	Coil, stator	1
** 377G-28*	Insulator, coil lead wire	24
** 377G-17*	Wedge	22
** 377G-22*	Wire, lead (13 in. in length)	12
** 377G-23*	Covering, lead wiring (yellow) (6 in. in length)	3
** 377G-24*	Covering, lead wiring (green) (6 in. in length)	1
** 377G-25*	Covering, lead wiring (black) (6 in. in length)	1
*** 655G-1	Cover, front	1
** PL-6-CD	Lockwasher	1
** 377G-27	Screw, cover	6
** 377G-12	Screw, cover	5
** 377G-20	Seal, lead	1
** 377G-15	Bearing, ball	1
** 379G-12	Nut, bearing clamp	1
** 377G-9	Retainer, bearing	1
** FH-207-B	Screw, bearing retainer	1
677G-51	Plate, name	3
** AN-3102-14S-1P	Screw, parker drive No. 00 x 1.8 long, brass	1
** KL-4B-N	Receptacle, electric connector	2
** F.FII-409-N	Lockwasher, receptacle screw	1
	Screw	4

* We do not recommend the purchase of the parts marked with asterisks, either because it is not economical to repair, because it is not possible to successfully salvage the other parts of the assembly, or because a special jig is required for assembly.

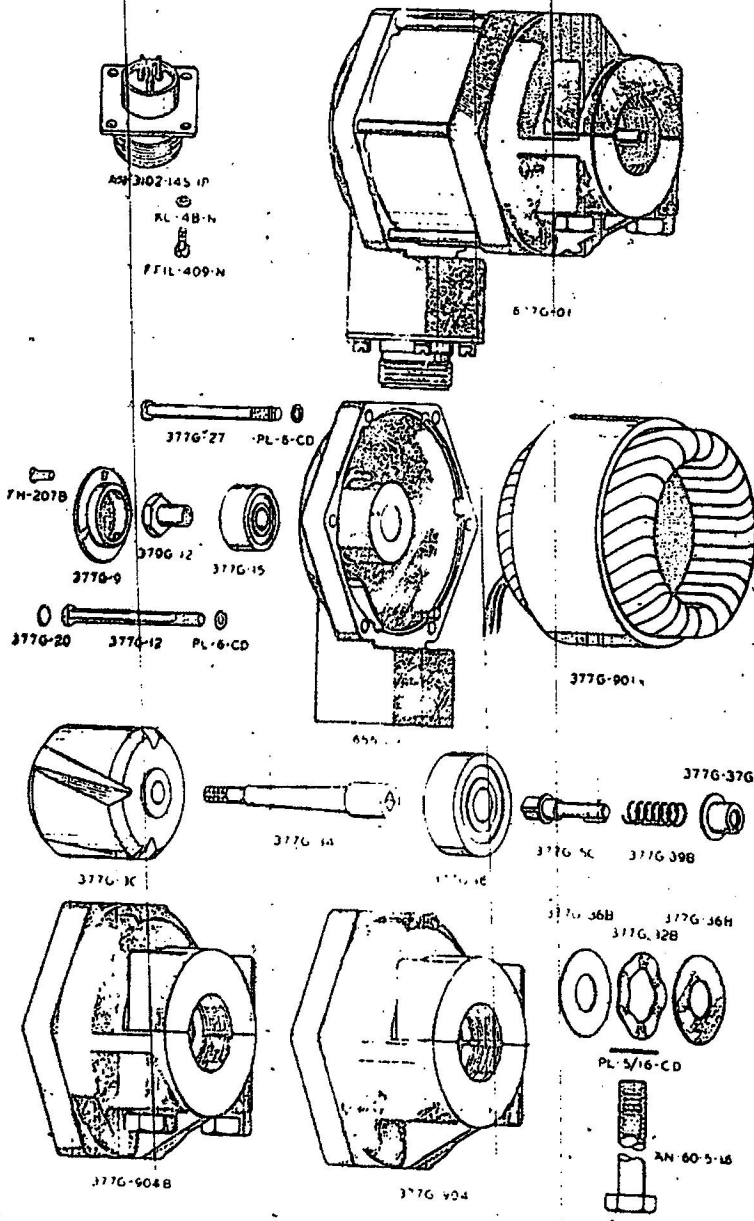
* Parts common to assembly units 677G-01 and 677G-02.

** Parts common to assembly units 677G-01, 677G-02, and 655G-01.

*** Parts common to assembly units 677G-01 and 655G-01.

PARTS LIST FOR FIGURE 2

WRITER BY <i>F.H. Cooper</i>	DATE ISSUED 6-3-51	OVERHAUL SPECIFICATION TACHOMETER GENERATOR TYPE E-9 - MODEL C-45C AND C-45H		
PROJECT ENGINEER	DATE REVISED			
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TYPE 677G-01 GENERATOR
FIGURE 2

WRITTEN BY <i>HW</i>	DATE ISSUED 6-3-53	OVERHAUL SPECIFICATION	
PROJECT ENGINEER		TACHOMETER GENERATOR TYPE E-9	
APPROVAL	DATE REVISED	MODEL C-45G AND C-45H	
APPROVAL		Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION NO. 9115
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ASSEMBLY PARTS LIST

Type E-9 Generator Assembly - Kollsman Type 677G-02

Part No.	Part Name	Qty. Req.
677G-02	Generator Assembly	1
* 377G-904B	Cover Assembly, rear	1
* 377G-904.1	Assembly for Mach Rear Cover & Clamp	1
+ 377G-42	Cover, rear	1
+ 377G-43	Spacer	2
+ 377G-30	Clamp	1
* PL-5/18-CD	Lockwasher, clamp bolt	2
* AN-60-5-16	Bolt, clamp	2
+ 377G-36B	Washer, outer	1
+ 377G-32B	Washer, outer	1
+ 377G-36B	Washer, outer	1
+ 377G-37B	Retainer, spring	1
+ 377G-39B	Spring, retainer	1
+ 377G-5C	Shaft, drive	1
** 377G-34	Shaft, magnet	1
** 377G-16	Bearing, ball	1
** 377G-3C	Magnet	1
** 377G-901	Coil assembly, stator	1
** 377G-902*	Lamination assembly, stator	1
** 377G-8*	Housing, stator	1
** 377G-14*	Insulator, stator lamina	1
** 377G-13*	Lamination, stator	1
** 377G-14*	Insulator, stator lamina	90
** 377G-19*	Sheet, insulating	1
** 377G-21*	Coil, stator	1
** 377G-26*	Insulation on lead wire	24
** 377G-17*	Wedge	22
** 377G-22*	Wire, lead (3 in. in length)	12
** 377G-23*	Covering, lead wiring (yellow) (6 in. in length)	3
** 377G-24*	Covering, lead wiring (green) (6 in. in length)	1
** 377G-25*	Covering, lead wiring (black) (6 in. in length)	1
677G-1	Cover, front	1
** PL-6-CD	Lockwasher	1
** 377G-27	Screw, cover	6
** 377G-12	Screw, cover	5
** 377G-20	Seal, oil	1
** 377G-15	Bearing, ball	1
** 349G-12	Nut, bearing clamp	1
** 377G-9	Retainer, bearing	1
** FH-207-B	Screw, bearing retainer	1
677G-52	Plate, name	3
677G-53	Plate, name	1
** AN-3102-14S-1P	Screw, parker drive No. 00 x 1-8 in. long	1
** KL-4B-N	Receptacle, electric, connector	4
** F.FH-409-N	Lockwasher	4
	Screw	4

* We do not recommend the purchase of the parts marked with asterisks, either because it is not economical to repair, because it is not possible to successfully salvage the other parts of the assembly, or because a special jig is required for assembly.

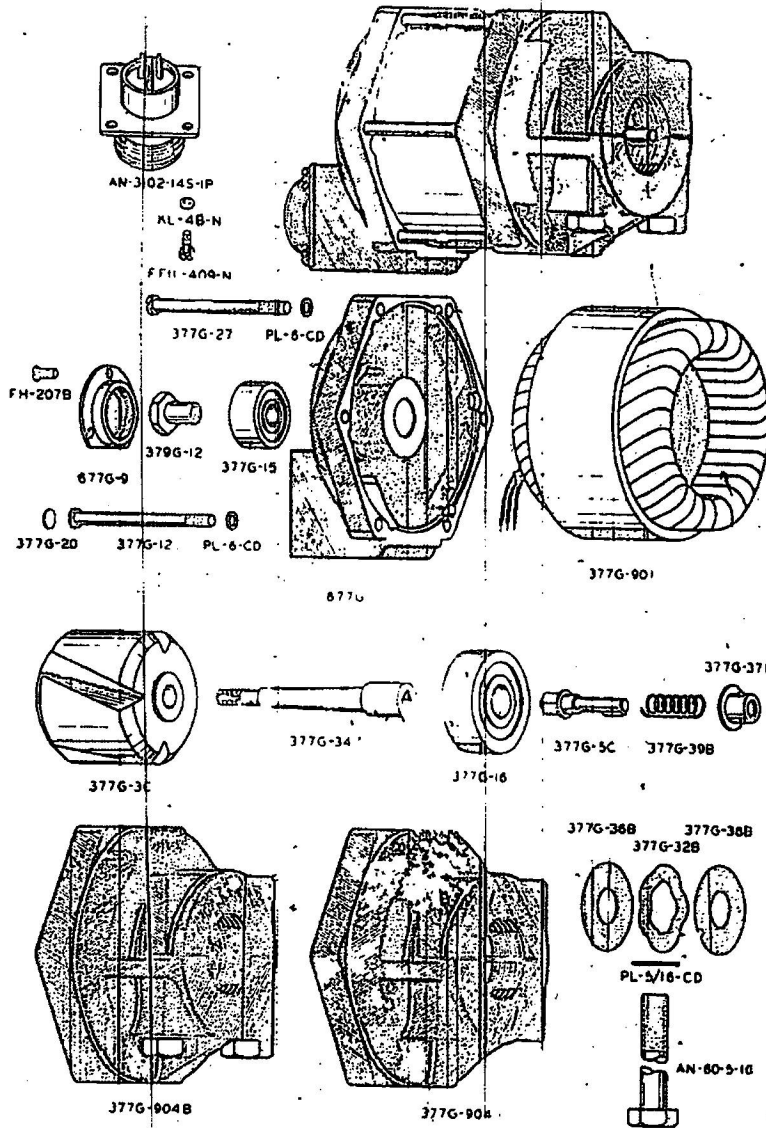
• Parts common to assembly units 677G-01 and 677G-02.

• Parts common to assembly units 677G-01, 677G-02 and 655G-01.

PARTS LIST FOR FIGURE 3

WRITTEN BY <i>J.H. Gentry</i>	DATE ISSUED 6-2-52	OVERHAUL SPECIFICATION TACHOMETER GENERATOR TYPE E-9 - MODEL C-45G AND C-45H		
PROJECT ENGINEER				
APPROVAL	DATE REVISED	Beech Aircraft CORPORATION Wichita, Kansas	OVERHAUL SPECIFICATION	PAGE
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TYPE 677G-02 GENERATOR
FIGURE 3

WRITTEN BY <i>J.M. [Signature]</i>	DATE ISSUED 6-3-53	OVERHAUL SPECIFICATION		
PROJECT E-502		TACHOMETER GENERATOR TYPE B-9 MODEL C-45G AND C-45H		
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