



CLASS II

SERVICE INSTRUCTIONS

19, 23, 24

No. 0698-359 Rev. I
ATA Code 24-30

SUBJECT: ELECTRICAL - ALTERNATOR - MODIFICATION OF ALTERNATOR ATTACHMENT AND SECURITY OF WIRING

SYNOPSIS OF CHANGE: Parts change.

EFFECTIVITY: BEEHCRAFT B19, serials MB-481 through MB-520;
B19 Sport 150, serials MB-521 through MB-691 except MB-652;
C23, serials M-1285 through M-1361;
C23 Sundowner 180, serials M-1362 through M-1551 and M-1553;
A24, serials MA-364 through MA-368;
A24R, serials MC-2 through MC-95;
A24R and B24R Sierra 200, serials MC-96 through MC-266.

REASON: Provide an additional brace for the alternator and an improved attachment of the alternator wire.

COMPLIANCE: At the owners discretion, however, Beech Aircraft Corporation recommends that this modification be accomplished at the next scheduled inspection.

DESCRIPTION: Add link to alternator mounting bracket and wiring clamp to alternator.

APPROVAL: FAA Approved - DOA CE-2.

MANPOWER: The following information is for planning purposes only:

Estimated man-hours: 3.5 hours.
Suggested number of men: 1 man.

MATERIAL: The following parts required for this modification are available through your BEEHCRAFT Parts and Service Outlet. The suggested selling price for all parts required is approximately \$10.00. (Price subject to future change without notice.)

PART NUMBER	DESCRIPTION	QUANTITY
LW13365Y**	Link	1
AN7-43/M/	Bolt	1
MS20074-05-05/M/	Bolt	1

AW-917

175

R875

1 of 4

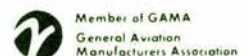
Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of three classes of Service Instructions. CLASS I (Red Border) are changes, inspections, and modifications that could affect safety. The factory considers compliance mandatory. CLASS II (Green Border) covers changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance, unless specified at the time of issuance. Class I and II are mailed to:

- (a) BEEHCRAFT Aero or Aviation Centers and International Distributors and Dealers.
- (b) Owners of record on the FAA Registration list and the

BEEHCRAFT International Owner Notification Service List.
(c) Those having a publications subscription.

CLASS III (No Border) covers changes which are optional, maintenance aids, product improvement kits and miscellaneous service information. Compliance is at the owner or operator's prerogative. Copies of Class III are distributed per a and c above. Information on Owner Notification Service or Subscriptions can be obtained through any BEEHCRAFT Aero or Aviation Center, International Distributor and Dealer, or the Factory. As Service Instructions are issued, temporary notation in the index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Instructions and in accordance with Beech Warranty Policy.

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PART NUMBER	DESCRIPTION	QUANTITY
AN936B516	Washer	1
MS24665-285	Pin, Cotter	1
MS21919DG8	Clamp	1

**Part number of Avco Lycoming, Williamsport Pennsylvania 17701.

WARRANTY:

Warranty credit will be allowed for parts and labor not to exceed that noted in the MANPOWER section of these Service Instructions on warranty claims submitted prior to May 1, 1975. All claims for parts must be noted as being on warranty request. Submit all claims to Parts and Service Operations, Beech Aircraft Corporation, Wichita, Kansas 67201.

SPECIAL TOOLS:

None.

WEIGHT AND BALANCE:

None.

REFERENCES:

None.

PUBLICATIONS AFFECTED:

It is recommended that a note to "See Service Instructions No. 0698-359 Rev. I" be made on the following:

19, 23 and 24 series Parts Catalog copies P/N 169-590012G or subsequent, figures 241B, 241C, 241D, 241E and 359A; Shop Manual copies P/N 169-590015F or subsequent, Section 6, page 6-31.

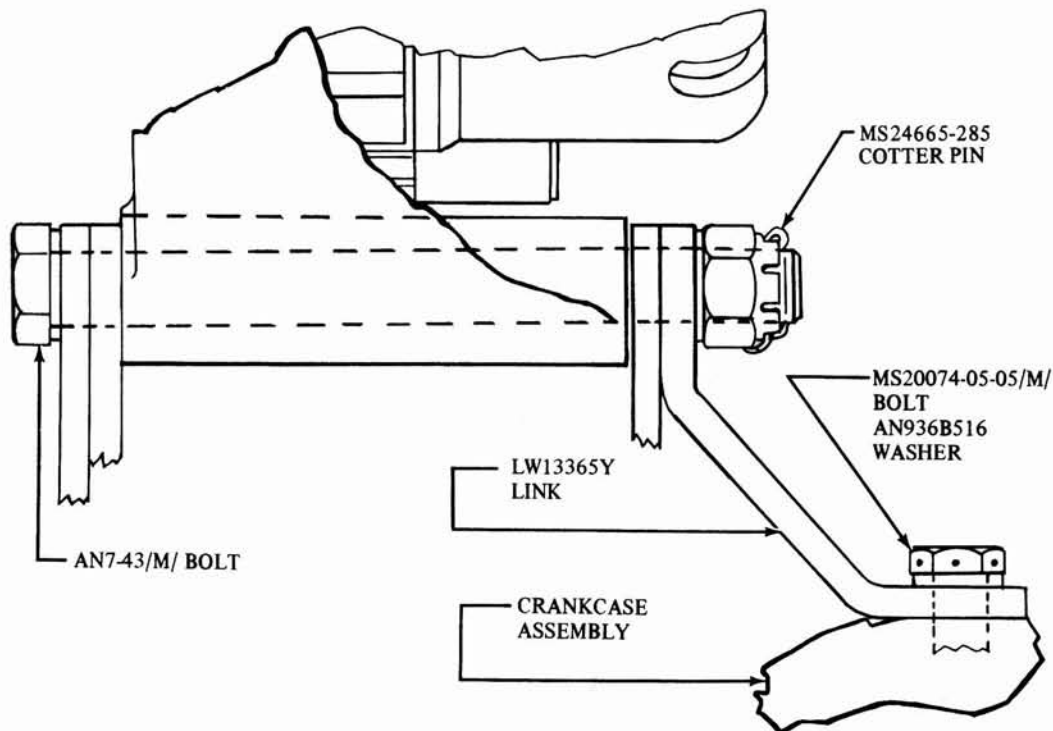


Figure 1. Installation of Link.

**ACCOMPLISHMENT
INSTRUCTIONS:**

This modification may be accomplished as follows:

1. Remove the lower engine cowling.
2. Loosen the alternator drive belt and remove and discard the alternator mounting bracket bolt that attaches the alternator to the mounting bracket. Retain the nut and washers.
3. Attach the P/N LW13365Y link to the crankcase assembly using the MS20074-05-05/M/ bolt and AN936B516 washer as shown in figure 1.
4. Install the new AN7-43/M/ bolt with the existing nut and washer as shown in figure 1.
5. Before tightening the AN7-43/M/ bolt, check the drive belt tension using either of the following methods:

CAUTION

When adjusting the belt tension, do not pry on the alternator cooling fan or the alternator pulley.

- a. Apply downward pressure on the belt at a point midway between the pulleys and note the amount of deflection. The correct values are presented in the following table.

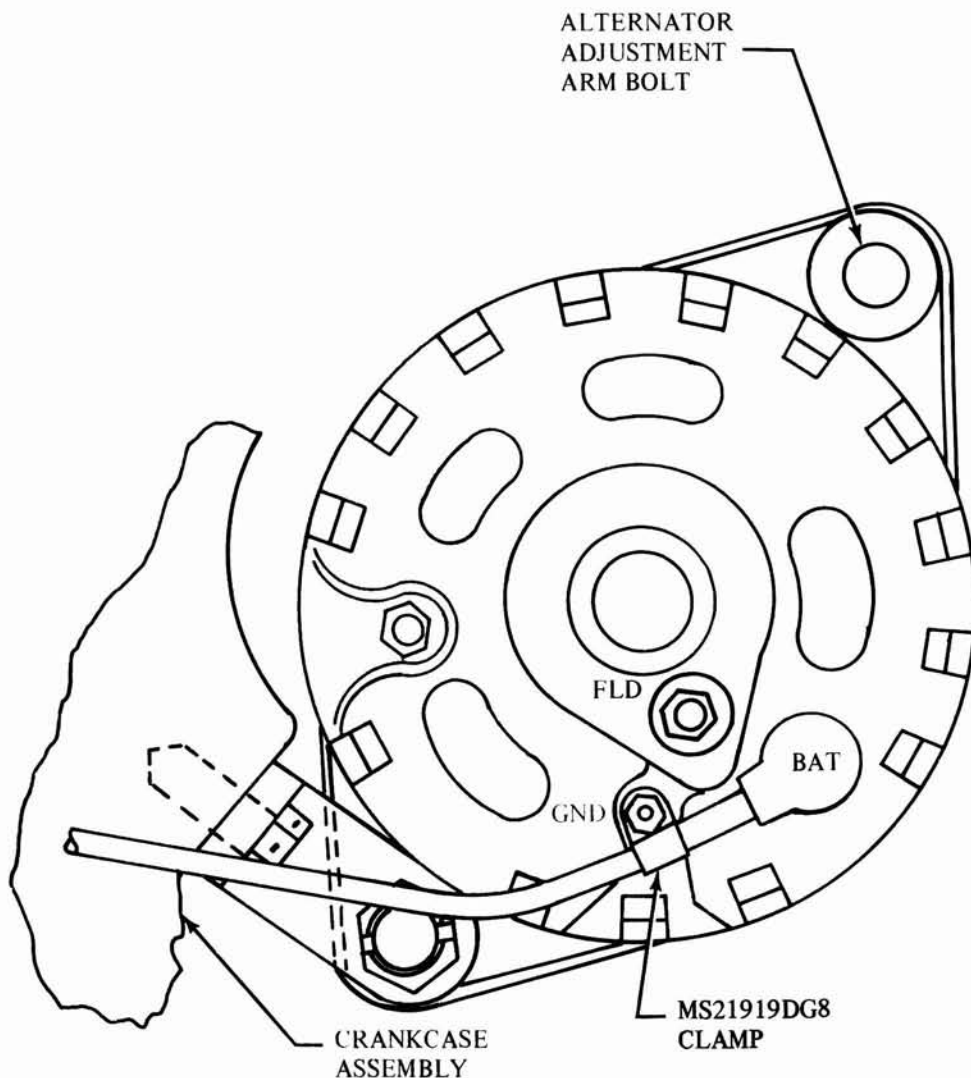


Figure 2. Installation of Clamp

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	PRESSURE	DEFLECTION
New Belt*	14 lbs.	.31 In.
Used Belt	10 lbs.	.31 In.

b. Apply a torque wrench to the alternator pulley retaining nut and measure the amount of torque (applied in a clockwise direction) required to cause the pulley to slip. Refer to the following table.

	BELT WIDTH	SLIP TORQUE
New Belt*	3/8 In.	11 to 13 Ft.-Lbs.
	1/2 In.	13 to 15 Ft.-Lbs.
Used Belt	3/8 In.	7 to 9 Ft.-Lbs.
	1/2 In.	9 to 11 Ft.-Lbs.

*When a new belt is installed, the belt should be checked for conformance to the used belt requirements after 1 hour of operation, at 25 hours and at each 100 hours thereafter.

6. After adjusting the drive belt tension, tighten the alternator adjustment arm bolt and the alternator mounting bracket bolt.

7. Install the MS24665-285 cotter pin through the nut and bolt as shown in figure 1.

8. Unless previously accomplished, secure the alternator wire harness to the back of the alternator using the MS21919DG8 clamp and existing nut as shown in figure 2.

9. Reinstall the lower engine cowling.

RECORD COMPLIANCE:

Upon completion of these Service Instructions, make an appropriate maintenance record entry.