

**LIST OF OVERHAUL MODIFICATIONS  
DIRECT CRANKING ELECTRIC STARTER  
TYPES 36E02-1A, 756-10C, 756-22C AND 756-56C  
(ECLIPSE)**

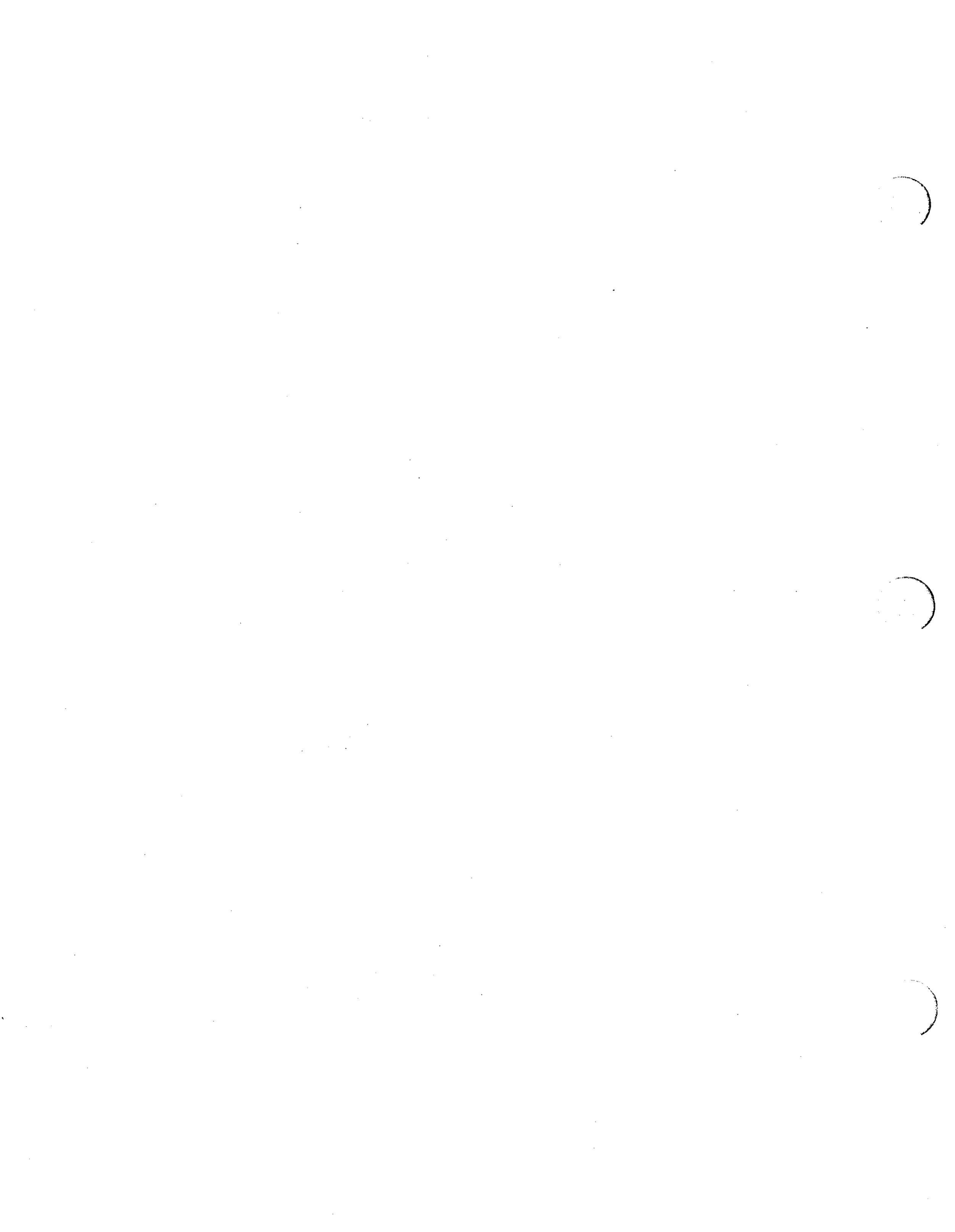
(This EO replaces EO 40-70BD-6B dated 15 Feb 62)

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<b>EO NO</b>	<b>DATE OR MOD DATA</b>	<b>DESCRIPTION</b>	<b>OVERHAUL CLASS</b>	<b>LEAFLET ISSUED</b>
40-70BD-6B/1		(Replaced by 40-70BG-6B/3)		
/2		(Replaced by 40-70BG-6B/4)		
/3	1 Nov 61	Installation of Stainless Steel Cotter Pin in Jaw Retaining Nut		Yes
*	/4	17 Apr 62	Spline Nut Parts 121252 to 646474	Yes

\*Asterisks appearing opposite entries denote changes since last issue.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF



## MODIFICATION

## SPLINE NUT PARTS 121252 TO 646474

(This EO replaces EO 40-70BD-6B/4 dated 12 Dec 61)

EQUIPMENT AFFECTED:	Electric Starters Type 756-74A
BY WHOM WORK WILL BE PERFORMED:	RDs and Contractors
WHEN WORK WILL BE PERFORMED:	At Overhaul
RCAF FORM ENTRIES:	NA
MODIFICATION OF SPARES IN STOCK:	NA

## PURPOSE

1 To lower breakaway torque and to stabilize clutch characteristics.

## MODIFICATION DATA

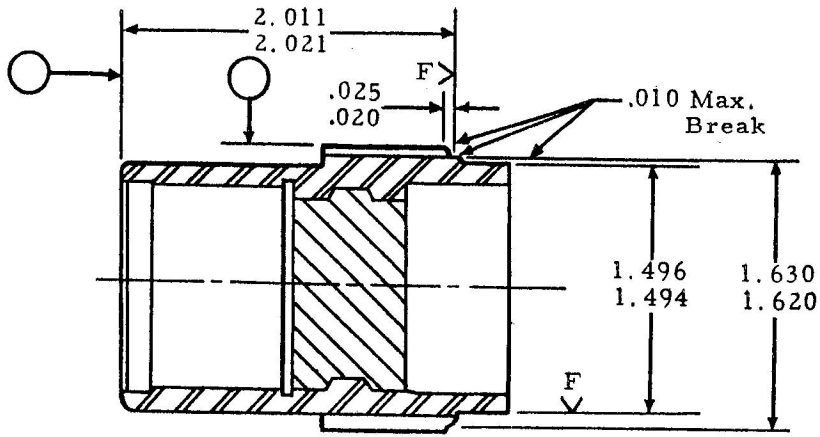
2 The following is the sequence of operations:

- (a) Remove cotter pin Part AN381-2-8; jaw nut Part 76288; baffle plate Part 887517; jaw Part 121251 and mounting head Part 75527. Screw shaft Part 121823, may also be removed at this time.
- (b) Remove driving barrel assembly and place in barrel clamp adaptor Part OB-80016-11.
- (c) Remove clutch adjusting nut using clutch adjusting wrench Part OB-80101-6.
- (d) Remove the spring ring assembly, the clutch springs, clutch spacer and the spline nut from the driving barrel.

NOTE

Tie clutch disc together to retain the original sequence of disc.

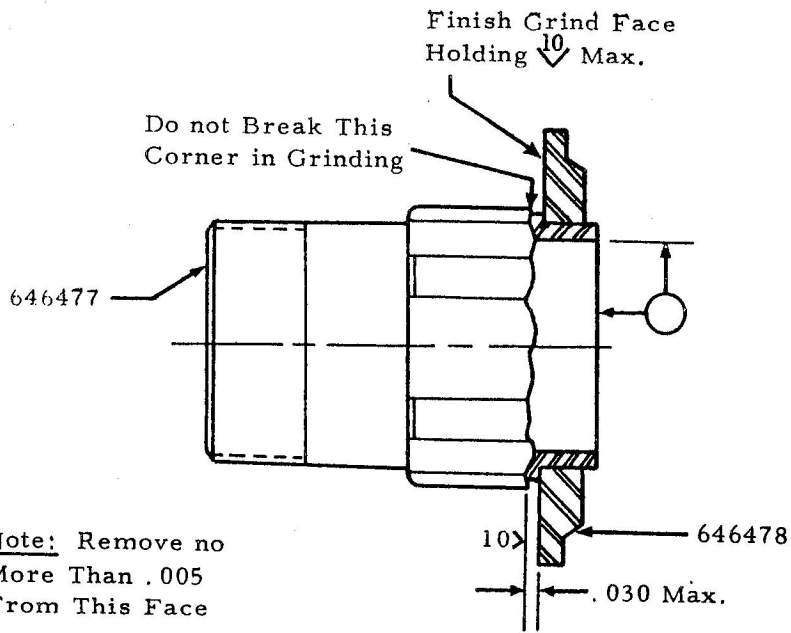
- (e) Upon removal and inspection, spline nut Part 121252 can be reworked as follows:
  - (1) Copper plate all over.
  - (2) Anneal.
  - (3) Machine to diameter shown in Figure 1 for brazing.
  - (4) Braze and harden with permabraz 630 1/32 dia. wire using type B-1 flux. Oil quench from braze heat, temper to 38-42 Rc.
  - (5) Strip copper plate.
  - (6) Inspect R/C.



1.496 Dia. to be Concentric  
With Loc. Dia. Within .005 FIR  
Remove Burrs

.010 Max Rad.

Figure 1



Note: Remove no  
More Than .005  
From This Face

Figure 2

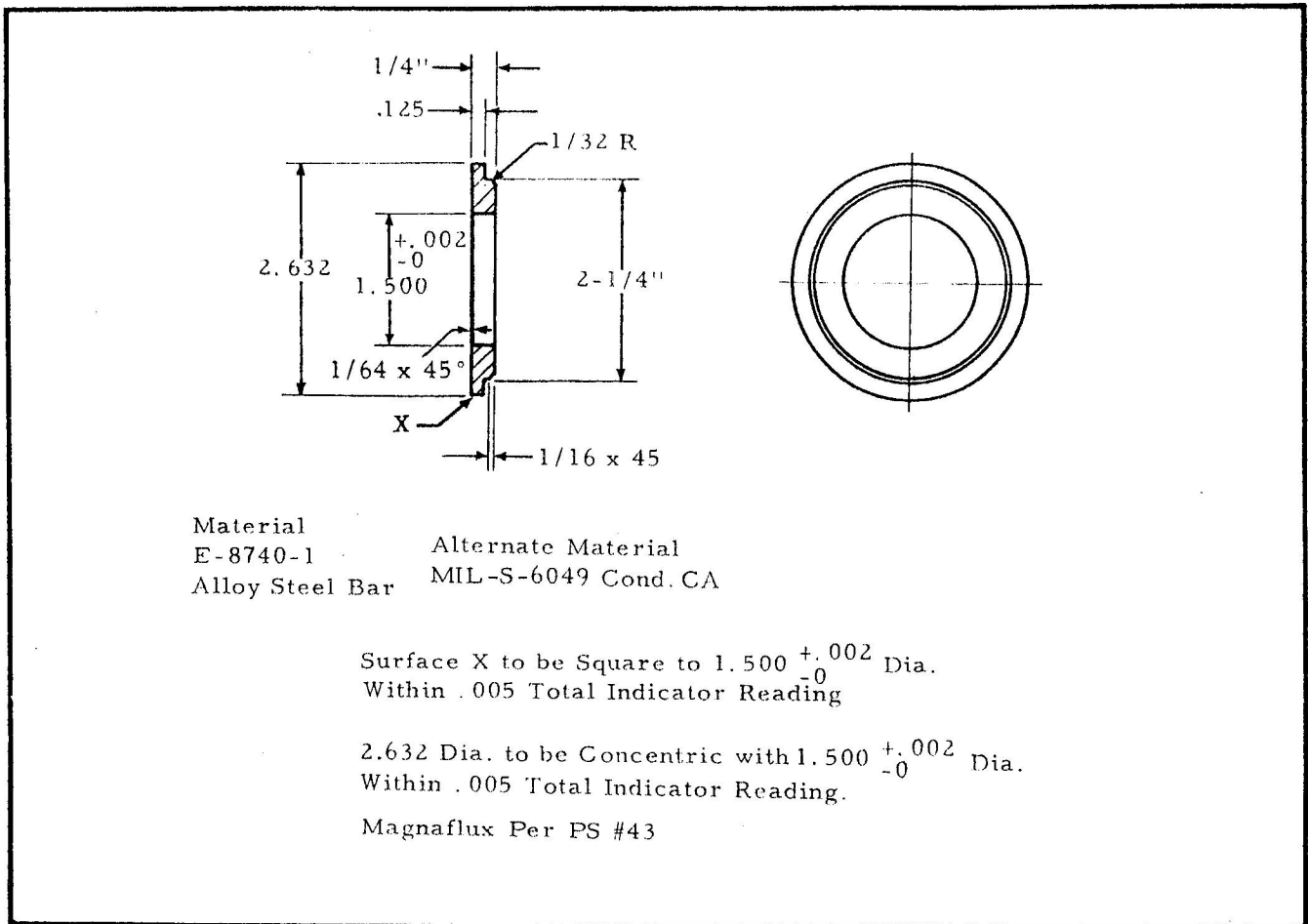


Figure 3

## MODIFICATION DATA (Cont'd)

- (7) Finish grind face, holding  $\sqrt{10}$  Max.
- (8) Tumble to produce  $\sqrt{8}$ .
- (9) Magnaflux per P.S. 43.
- (f) Locating ring Part 646478, may be fabricated by using dimensions shown in Figure 3.
- (g) Assemble locating ring Part 646478 to reworked spline nut as shown in Figure 2.

NOTE

If facilities are not available, spline nut Part 646476 may be procured from Bendix Utica or Part 121252, may be returned for rework.

- (h) Re-assemble in reverse order of disassembly.

## MODIFICATION DATA (Cont'd)

## NOTES ON RE-ASSEMBLY

Do not attempt to force any sub-assembly at the time of assembly, as this action may result in damage to bearing and gears.

Assemble the clutch packing washer in the driving barrel.

Place the spline nut, threaded end up, on a block of wood about 1-1/4" thick and 2" square. Place the driving barrel over the spline nut so that it is in approximately the position it will have on final assembly.

Assemble the pack into the driving barrel disc by disc. Lubricate each disc with a clean brush dipped in AN-G-25 grease plus 25% by weight AN-G-24 graphite. The first two discs inserted should be outer discs, thereafter inserting inner and outer discs alternately. Assemble 12 outer and 11 inner discs into the barrel.

Spring Part 644528, is to be used with 756 Starters having a clutch rating of 300 or 350 ft. -lbs. (Exclude 756-76A as this starter incorporates Bellevilles in place of helical springs). When assembling springs into starters, care must be taken not to exceed a total range of 10 lbs between springs used in the same unit. This is necessary in order to avoid erratic clutches. Springs Part 644528, must give 250 lbs. minimum when compressed to .728 inches. Maximum solid height is .700 inches with a maximum free length of .860 inches. These springs will be selected and grouped to shipment as spares.

Install and lubricate the nine clutch springs Part 644528 and the outer face of the spring ring assembly with AN-G-25 plus 5% by weight AN-G-24 graphite. Assemble the springs on the assembly and then the entire assembly on the clutch spacer.

Coat the threads of the clutch adjusting nut with anti-seize compound JAN-A-669, and then thread it on the spline nut.

To ensure clutch setting, a total of ten plus three final engagements will be required in the following manner. Adjust clutch setting 350 plus 0 minus 20 ft. -lbs. within first five engagements. The next five engagements are to be made at this setting. Cool starter to room temperature prior to three final engagements. During this third set of engagements, the clutch setting should remain within the permissible limits of 350 plus 0 minus 20 ft. -lbs.

Coat the contacting surfaces of the baffle plate assembly and the mounting flange of the drive end housing with AN-G-14a grease.

Stencil 350 ft. -lbs. in white lacquer on mounting head.

(j) Type number to be changed from 756-74A to 756-74B.

## PARTS REQUIRED

3 The following parts are required per assembly and are to be contractor supplied:

RCAF REF.	PART	DESCRIPTION	QTY.
5U/	646476	Spline nut	1
5U/	646478	Ring locating	1
5U/	644528	Springs	9
28/	AN-381-2-3	Cotter Pin	1

## PARTS REQUIRED (Cont'd)

NOTE

Part 646476 is the completed assembly after rework as per Figures 1, 2 and 3.  
Part 646478 is required only if Part 121252 is reworked and may be fabricated in accordance with Figure 3.

## PARTS RENDERED SURPLUS OR OBSOLETE

4 The following parts are rendered surplus:

RCAF REF.	PART	DESCRIPTION	QTY.
5U/	121252	Spline nut	1
5U/	13210	Thrust washer	1
28/	AN-381-2-8	Cotter pin	1

NOTE

See Figures 1 and 2 for rework of Part 121252 to the latest configuration.

## WEIGHT, LOADING AND BALANCE DATA

5 NA

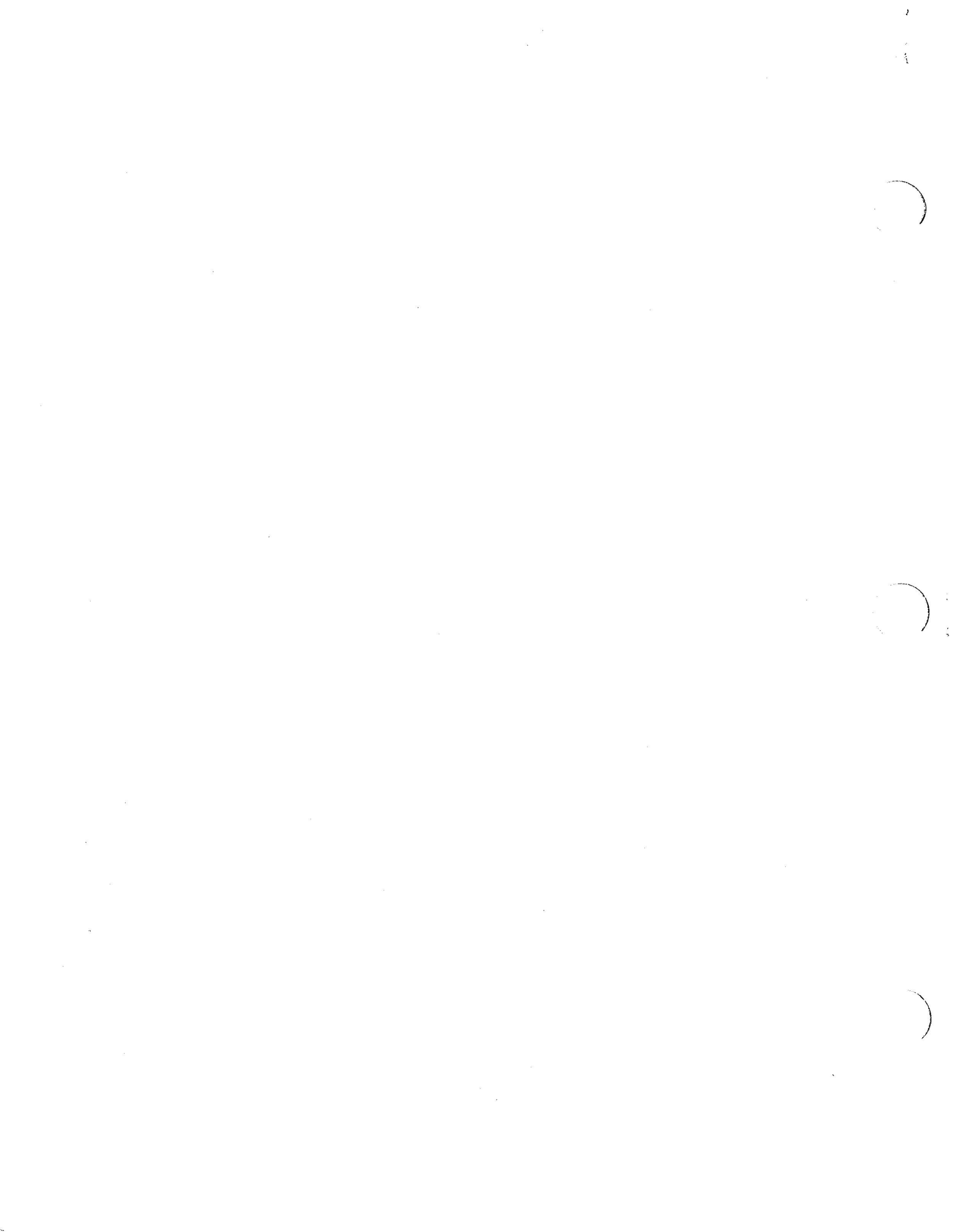
## ADDITIONAL DATA

6 The following additional data applies:

- (a) For the disassembly, assembly and test procedures Bendix publications 36U-2-116 and 36U-3-117 may be used.
- (b) This leaflet includes information contained in Bendix Service Bulletins 72 and 74 dated 12 Jun 61 and 6 Sep 61, respectively.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

Prepared by:  
AMC/SAVO/IES2





1 Nov 61

# MODIFICATION

## INSTALLATION OF STAINLESS STEEL COTTER PIN IN JAW RETAINING NUT

EQUIPMENT AFFECTED:	All Eclipse Pioneer Starters Type 756
BY WHOM WORK WILL BE PERFORMED:	RDs and Contractors
WHEN WORK WILL BE PERFORMED:	On Overhaul
RCAF FORM ENTRIES:	NA
MODIFICATION OF SPARES IN STOCK:	Yes

**PURPOSE**

1 To prevent further breakage of cotter pins, and to add torque value to the jaw nut.

**MODIFICATION DATA**

2 The following is the sequence of operation:

- (a) Remove existing cotter pin Sec./Ref. 28/11183 from jaw retaining nut.
- (b) Torque jaw retaining nut to  $53 \pm 5$  in. -lbs.
- (c) Install cotter pin Sec./Ref. 28/5945 in jaw retaining nut.

**PARTS REQUIRED**

3 The following part is required: -

RCAF REF.	PART	DESCRIPTION	QUANTITY
28/5945	AN381-2-8	Cotter pin	1

**PARTS RENDERED SURPLUS OR OBSOLETE**

4 The following part is rendered surplus: -

RCAF REF.	PART	DESCRIPTION	QUANTITY
28/11183	AN380-2-2	Cotter pin	1

**WEIGHT, LOADING AND BALANCE DATA**

5 The effect on C of G is nil.

ISSUED ON AUTHORITY OF THE CHIEF OF THE AIR STAFF

Prepared By:  
AMC/SACO/ACA

