



**HUGHES  
SERVICE INFORMATION  
NOTICE**

NOTICE NO. N-86

DATE Febr. 26, 1971

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SUBJECT: DESENSITIZED THROTTLE MODIFICATION,  
KIT NO. M10061

MODELS AFFECTED: 269A Helicopter Serial Nos. 0011 and subsequent \*

TIME OF COMPLIANCE: At Owners and Operators Discretion

The information given in this Service Information Notice lists a procedure for installation of a throttle modification kit which in effect increases (from 90° to 130°) the amount of grip rotation required to go from full throttle to idle.

PREFACE:

The result is a less sensitive throttle response, and less tendency to overcompensate when trying to maintain proper rpm under varying load conditions... i.e. inadvertent engine overspeed during engine start up and during throttle advance prior to applying collective pitch on lift off.

\* For the above affected helicopters, the Modification Kit No. M10061 may be used only if 269A7223 or 269A7223-3 throttle control sector gear is installed.

Reference

269 Series - Basic Handbook of Maintenance Instructions, Issued 1 September 1970

269 HMI - Supplement TH-55A, Issued 1 September 1970

PARTS LIST

<u>Nomenclature</u>	<u>Part No.</u>	<u>Quantity</u>
Adapter	269A7295	1
Extension	269A7275-5	1
Bracket	269A2226	1
Rivet	MS20470AD3	2
Bolt	NAS565-25	1
Washer	AN960-516	1
Nut	MS21083-D5	2
Lockwire	MS20995C32	A/R
Bolt **	269A7131-3	1
Bushing **	269A8445	1

\*\* Not required for 269A (TH-55A) helicopter serial nos. 0668 and subs.

a. Check that all electrical switches are OFF; ensure the MAGNETO switch is OFF.

b. Disconnect flexible cable from throttle bellcrank extension. (Refer to Section 4 of HMI)

c. Remove existing extension from bellcrank; discard extension.

d. Install new adapter on bellcrank with washer, bolt and lockwire. (See Figure 1)

e. Install new extension on adapter with jam nuts.

f. Remove upper jam nut and washer securing flex cable at 269A2243 bracket; position new 269A2226 bracket as shown and secure with washer and jam nut.

g. Using #40 drill or equivalent, drill two 0.0980 inch diameter holes in 269A2129 rib to match attach holes in 269A2226 bracket. Install bracket to web with rivets.

h. Install flex cable to new extension using hardware as shown.

i. Measure distance (3.80 inches) from centerline of throttle override bellcrank bushing to centerline of clevis hole in throttle bellcrank extension.

j. Loosen adjustable extension jam nut and adjust extension as necessary to obtain 3.80 inch dimension.

k. With extension clevis fork holes laterally level (slot vertical), retorque adjustable extension jam nut.

l. Position pilot's collective pitch stick in full down position.

NOTE

When turning the idle adjustment screw, count the number of turns or exposed threads to allow subsequent return of screw to original idle rpm setting.

m. Back off idle speed adjustment screw so that throttle valve will fully close.

NOTE

Minimum of 0.06 inch clearance between bottom of flexible cable end fitting and cable sleeve establishes cushion for normal throw range.

n. Measure for a distance of 6.35 inches from mounting bracket to centerline of flexible cable end fitting clevis hole. Reposition cable as necessary for correct dimension by adjusting cable retention jam nuts at mounting bracket. Tighten and lockwire jam nuts to maintain 6.35 inch dimension.

o. Check throttle modification kit installation for discrepancies.

p. Check idle speed and operation; as required, make idle speed mixture and mixture linkage adjustment, per HMI.

q. Flight test helicopter in cruise (with throttle friction on) and, if necessary, readjust length of throttle bellcrank extension as follows:

(1) Shorten extension if rpm increases as collective is increased.

(2) Lengthen extension if rpm decreases as collective is increased.

r. Record installation of Desensitized Throttle Modification Kit No. M10061 in Components Record of helicopter Log Book.

WEIGHT & BALANCE DATA

Weight and balance not affected.

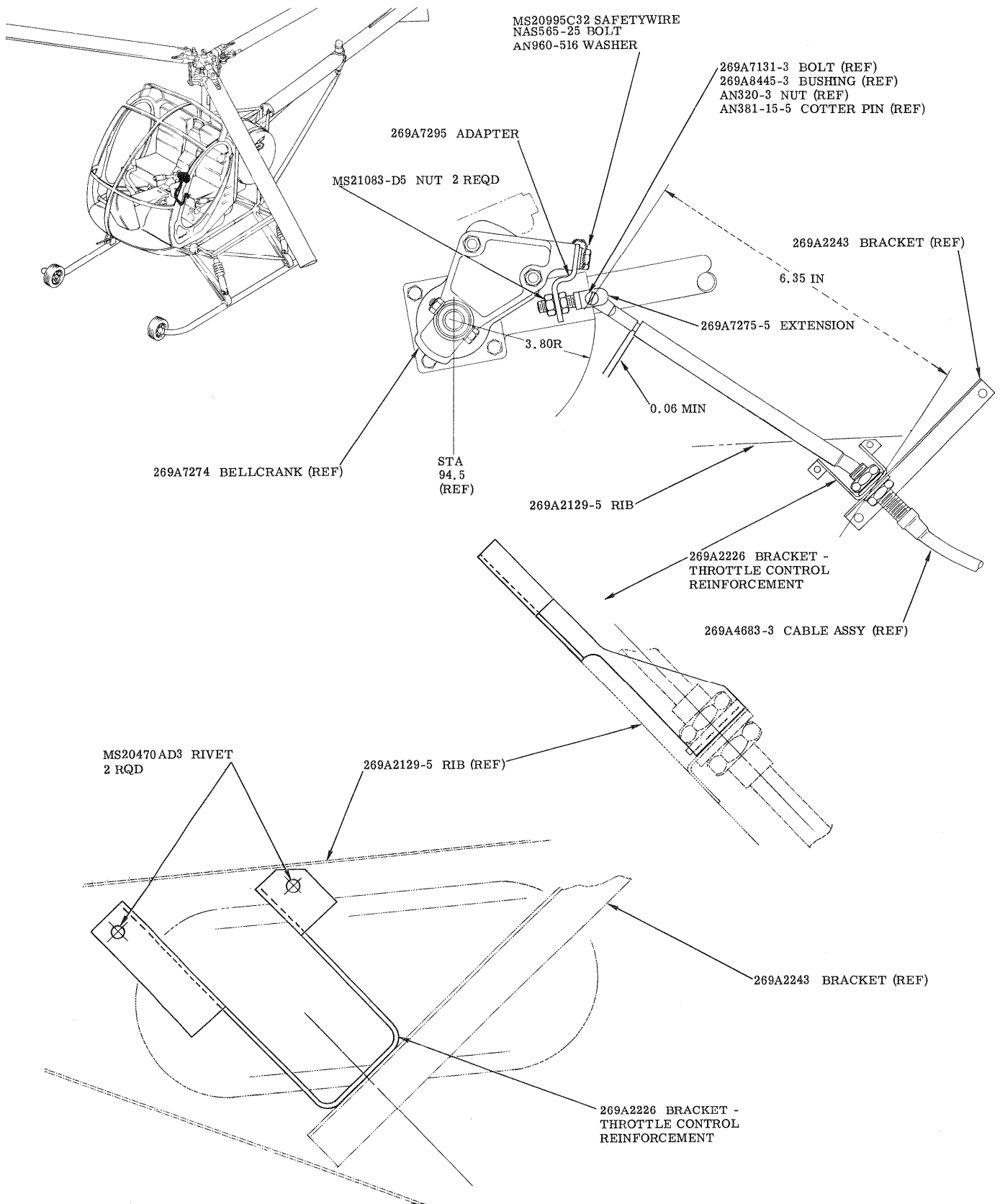


FIGURE 1. DESENSITIZED THROTTLE-MODIFICATION KIT NO. M10061.