



SCHWEIZER SERVICE INFORMATION NOTICE

* Supersedes Service Information Notice
No. N-176.1, Dated 1 February 1982

SUBJECT: INSTALLATION OF MAIN ROTOR BLADE ELASTOMERIC DAMPER ASSEMBLIES, PN 269A1290-1.

MODELS AFFECTED: The following helicopters equipped with PN 269A1160, 269A1185 or 269A1190-1 Main Rotor Blade Assemblies:

Model 269A Helicopter Serial No. 0011 through 0314
Model 269A (TH-55A) Helicopter Serial No. 0315 through 1109.
Model 269A-1 Helicopter Serial No. 0001 through 0041.
Model 269B Helicopter Serial No. 0001 through 0462
Model 269C Helicopter Serial No. 0004 through 1019.

TIME OF COMPLIANCE: At owners and operators discretion.

PREFACE: The information given in this Service Information Notice lists a procedure for field installation of the subject main rotor blade elastomeric damper assemblies on the above affected helicopters. The new elastomeric type damper is designed to simplify blade phasing, reduce maintenance costs, and improve operating characteristics of the main rotor system. The new damper is to be used in sets of three only.

It is to be noted that the service life of the 269A1290-1 main rotor blade elastomeric damper assembly is 6000 hours. Also, the subject dampers must not be intermixed with other type or part number damper assemblies.

REFERENCE: 269 Series - Basic HMI, Reissued 15 March 1982
269 Series - HMI Appendix B, Reissued 15 August 1982

(■) Denotes portion of text added or revised.

*PARTS LIST

<u>Nomenclature</u>	<u>SAC Part No.</u>	<u>Qty.</u>	<u>Source</u>
Damper assembly - elastomeric, main rotor	269A1290-1	3	SAC
Fitting assembly (steel)** - mounting arm, elastomeric damper	269A1291-5	3	SAC
Fitting assembly (aluminum)** - mounting arm, elastomeric damper (alternate to 269A1291-5)	269A1291	3	SAC
NAS1304-70D Bolt	M 20407492	3	SAC/Commercial
NAS1305-14D Bolt	M 20405643	3	SAC/Commercial
NAS1305-23 Bolt	M 20405678	3	SAC/Commercial
NAS1305-15D Bolt	M 20406089	3	SAC/Commercial
HS626S5-350 Bushing	M 21810053	3	SAC
HS626S5-390 Bushing	M 21810096	3	SAC
AN960KD416 Washer	M 27012388	3	SAC/Commercial
AN960KD516 Washer	M 27013562	6	SAC/Commercial
AN960-516L Washer	M 27012701	6	SAC/Commercial
AN320-5 Nut	M 22005707	3	SAC/Commercial
MS17825-4 Nut	M 22188143	3	SAC/Commercial
MS 17826-5 Nut	M 22190032	3	SAC/Commercial
MS21042-5 Nut	M 22200682	3	SAC/Commercial
MS24665-153 Pin, Cotter	M 21203688	9	SAC/Commercial
MS2099C32 Wire, Safety	M 26200687	AR	SAC/Commercial

* Order 269A1292 Elastomeric Damper Kit to obtain all parts listed in PARTS LIST.

** Do not mix steel with aluminum.

TOOLS AND EQUIPMENT

Rigging tools, main rotor

Balancer/phazor (Chadwick-Helmuth Vibrex)

PROCEDURE**NOTE**

Support main rotor blade parallel to ground. Install blade support approximately 12 inches inboard from blade tip. Adjust stand to level blade relative to ground. Do not allow support to bend trailing edge tab. Do not allow rotors to turn while blade is disconnected.

- a. Remove existing main rotor damper assembly and damper arm (link) from one of the main rotor blades and pitch housing assemblies. (Refer to Section 8 of Basic HMI.)
- b. Install PN 269A1291-5 fitting (steel) to pitch housing assembly as follows:

NOTE

To aid in the prevention of corrosion, apply a light coat of zinc chromate primer to hardware being installed in following steps. Always reassemble components while primer is still wet.

- (1) Insert horizontal bolt NAS1304-70D through fitting, pitch housing, and spacer as shown in Figure 1; secure bolt with AN960PD416 washer and MS17825-4 nut. If castellation of nut does not line up with cotter pin hole, advance nut to next hole. Add washers as required to stay within torque limits. Install cotter pin.
- (2) Insert vertical bolt NAS1305-23 with HS626-S-5-390 bushing through fitting and pitch housing lug as shown; secure bolt with AN960PD516 washer and MS21042-5 nut. Check for interference, and clear if required.

NOTE

The 269A1291 fitting (aluminum) is an alternate and may be used only in sets of three. It is installed the same as 269A1291-5.

NOTE

Six hours of rest is required to allow damper to return to unloaded condition.

- c. Ensure that sufficient time has elapsed for damper to return to an unloaded condition.
- d. Adjust 269A1290-1 damper assembly on bench so that a dimension of 6.460 ± 0.005 inches exists between centerline of holes in damper clevis and damper cap. Establish 0.12-inch initial clearance for jam nut as shown in Figure 2. Leave jam nuts fingertight.
- e. Install damper clevis on fitting lug, and damper cap on blade trailing edge root fitting lug, using hardware as shown. Do not torque nuts.

NOTE

Threaded end of turnbuckle shaft must protrude through clevis base a minimum of two full threads and must clear blade damper attach fitting.

- f. Tighten jam nut to 95 to 100 inch-pounds. Safety jam nuts to turnbuckle with new lockwire. Apply torque paint.
- g. Torque AN320-5 nut securing clevis bolt to 30 to 60 inch-pounds; tighten MS17826-5 nut securing damper cap. If castellation of nut does not line up with cotter pin hole, advance nut to next hole. Add proper washers as required to stay within torque limits. Install cotter pin through each nut and bolt.
- h. Remove blade support and repeat above procedure for remaining blades.
- i. Balance main rotor system. (Refer to Service Revision R-5.)
- j. Record compliance with this Service Notice in Compliance Section of Helicopter Log Book.

WEIGHT AND BALANCE DATA

Add 0.078 lb to STA 100 (steel fitting)

or

Subtract 1.74 lb from STA 100 (aluminum fitting)

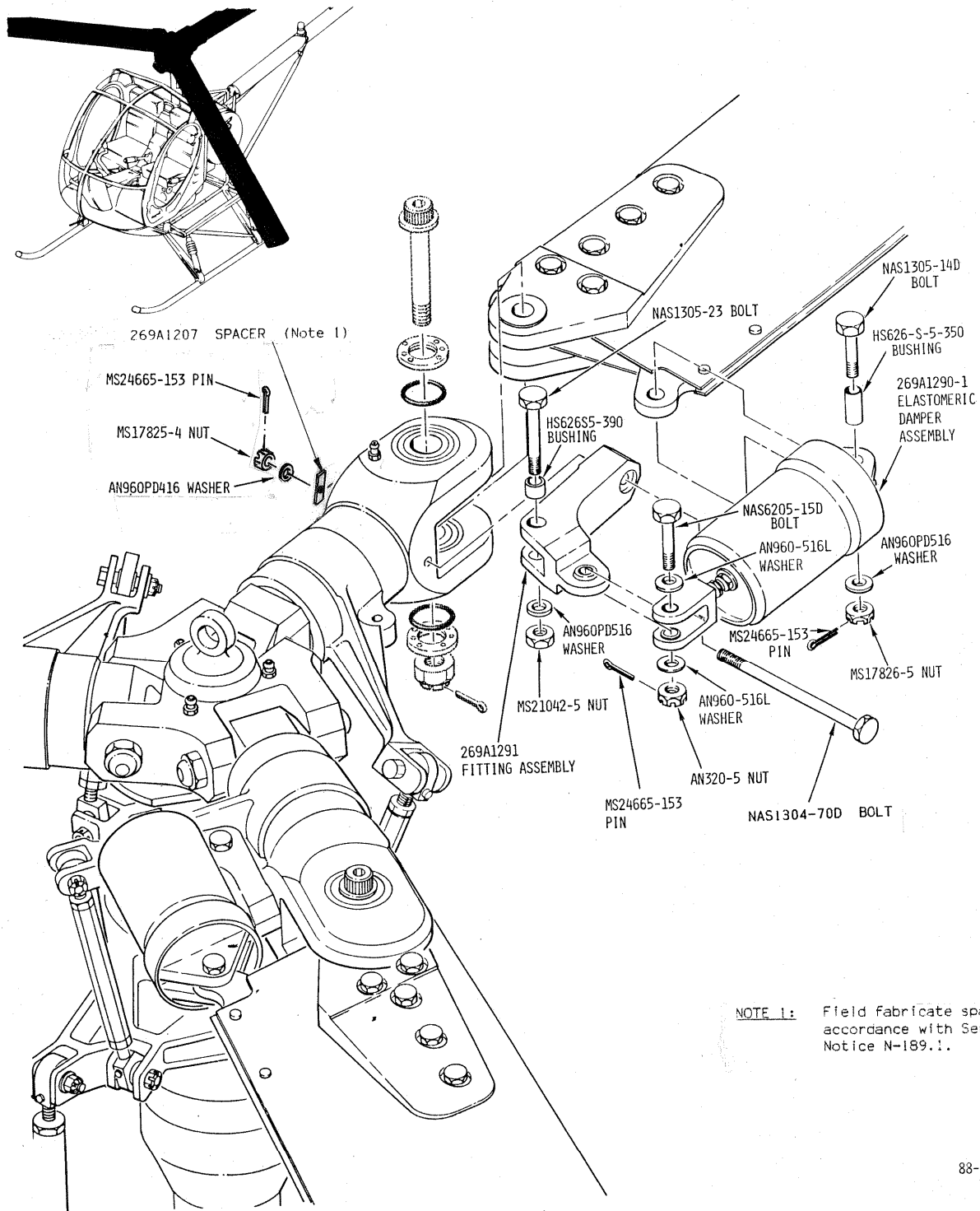


Figure 1. Installation of 269A1290-1 Main Rotor Damper Assembly

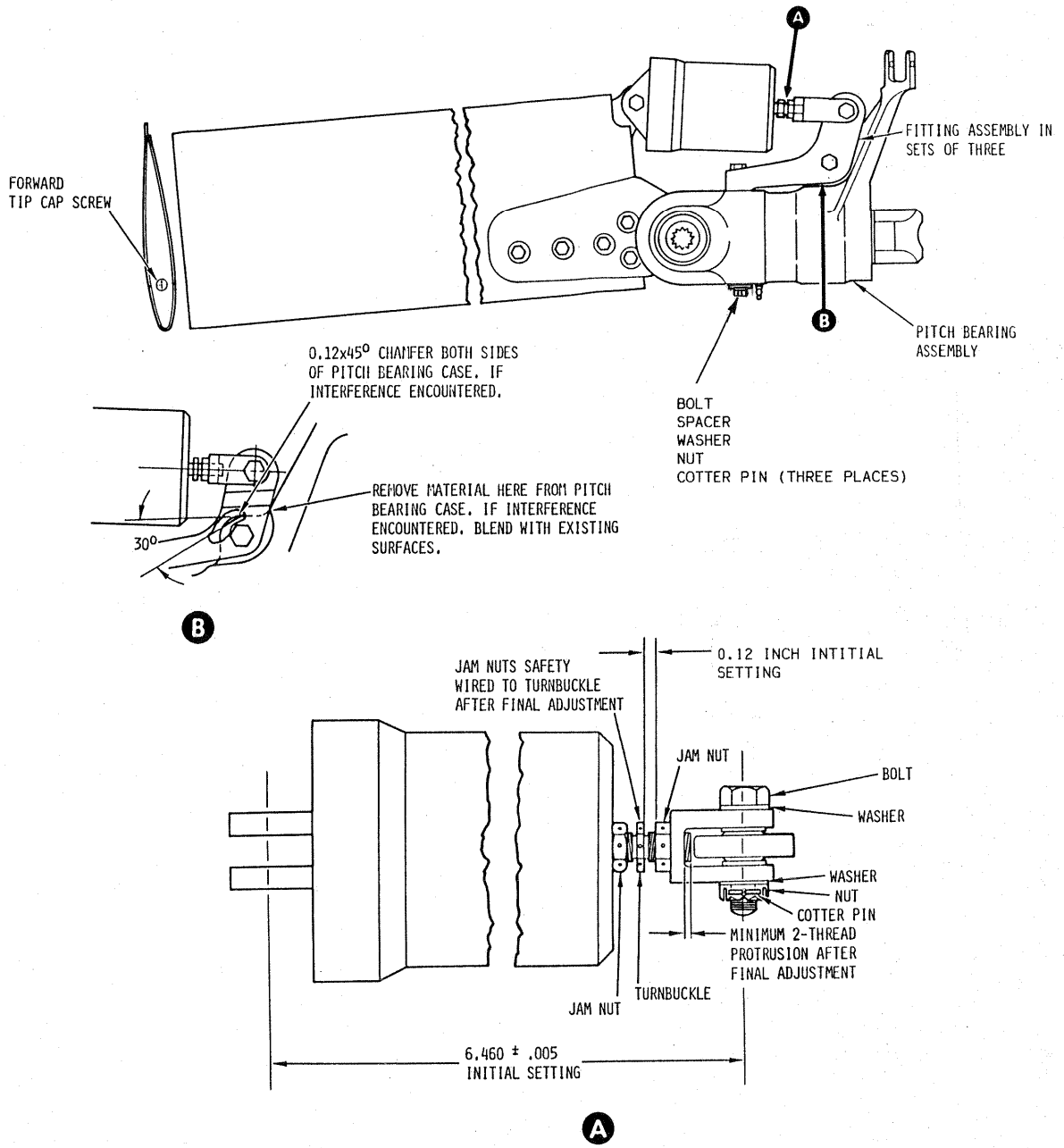


Figure 2. Phasing Main Rotor Blades with Elastomeric Dampers Installed

REFERENCE SHEET

SERVICE INFORMATION NOTICES AND LETTERS

ACTION REFERENCE: Refer to Service Information Notice No. N-176.2 when performing maintenance to main rotor blade damper assemblies (rotary friction type).

HMI REFERENCE: Insert this sheet in Basic HMI, Section 8 p. 8-26A.

This Reference Sheet shall be kept as part of the manual until the data is incorporated at the next scheduled revision of 269 Series Basic HMI (See Service Information Summary, Page i of Basic HMI.)