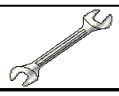
No. 3638-S-63

SAFETY INFORMATION NOTICE

SUBJECT: MAIN ROTOR DRIVE

Reminder on the importance of collecting, characterizing and following up particles in dynamic component lubrication systems

For the attention of	
	

AIRCRAFT CONCERNED	Version(s)	
	Civil	Military
EC120	B	
AS350	B, BA, BB, B1, B2, B3, D	L1
AS550		A2, C2, C3, U2
AS355	E, F, F1, F2, N, NP	
AS555		AF, AN, SN, UF, UN, AP
EC130	B4, T2	

An essential part of the behavior follow-up and continued airworthiness of the dynamic assemblies installed on the Airbus Helicopters aircraft range is ensured by the periodic monitoring of particles on the various monitoring means (chip detectors, filters, etc.). The detection of particles generally confirms an internal degradation that must be monitored.

The purpose of this Safety Information Notice is to remind you and raise your awareness on the importance of a strict monitoring of the dynamic assemblies, by collecting and characterizing particles potentially emitted by those assemblies. A monitoring process in compliance with Airbus Helicopters' instructions enables you to detect an emerging degradation and prevent the extension of its damages, which could also affect other internal parts (e.g. of the MGB), and thus to limit your repair costs.

If the particles generated by damages of the spalling type are not detected, they can cause degradations of surrounding parts.
No particle collection or detection must be neglected, as they can result from a degradation that may cause a significant decrease in the safety margins of the affected dynamic assembly over time.

This Safety Information Notice also reminds you of the latest updates to the instructions to be followed in case of particle detection. They are defined in the technical publication.

These instructions, which are included in the Maintenance Manual, are specific to each type of helicopter.

However, the generic procedure for collecting and characterizing particles remains the same for all aircraft from the Airbus Helicopters range, including the Ecureuil and Colibri range. This procedure, which is summarized below, is described in **MTC 20-08-01-601**.

If particles are detected:

1. Check for particles other than those already collected:

   - On the magnetic element(s)

   - In the filter

   - In the oil after draining.

   - **If particles are detected on the Ecureuil and Colibri range, you are also requested to look for particles in the Gear Box sump, using a magnetic retriever introduced through the different openings of the MGB.**

2. Characterization of the collected particles (type)

3. Characterization of the collected particles (dimensions)

4. Comparison with the acceptance criteria. The defined criteria are specified in the Standard Practices Manual (**MTC 20-08-01-601**), unless otherwise specified in the Aircraft Maintenance Manual (AMM / MET / etc.) or in Emergency ALERT SERVICE BULLETINS.

5. The operations listed above can lead to the removal or short-interval monitoring (as per the procedure described in the AMM of the versions concerned) of the affected dynamic assembly.

The latest changes in the MTC are reminded below:

1- Provision of additional part numbers of magnifying tools for the characterization of particles:

   New stereo microscope part numbers have been validated by Airbus Helicopters within the scope of particle analysis (paragraph B.2.b of **MTC 20-08-01-601**). The choice of binoculars will be made depending on the constraints and requirements of each operator: size, camera included, connectivity, etc.

2- Provision of additional information to facilitate particle characterization:

   Information was added to the description of particle shapes to facilitate their characterization:

   - More detailed descriptive text on particle shapes (paragraph B.3 of **MTC 20-08-01-601**)

   - Additional photos of particles and their origin (Figures 6 to 20 of **MTC 20-08-01-601**)

   - Creation of a table including the possible shapes according to the material of the particle (Figure 21 of **MTC 20-08-01-601**).

3- Update of the particle detection tracking sheet to include the monitoring of swarf particles that have a cumulative criterion according to the TSO (Figure 22 and Figure 23 of **MTC 20-08-01-601**).

This information was included in the last update of the Standard Practices Manual. We encourage you to strictly comply with it.