TECHNICAL MANUAL

AVIATION UNIT MAINTENANCE (AVUM)
AND AVIATION INTERMEDIATE
MAINTENANCE (AVIM) MANUAL

FOR

GENERAL AIRCRAFT MAINTENANCE

(PNEUDRAULICS MAINTENANCE AND PRACTICES)

VOLUME 2

*This manual together with TM 1-1500-204-23-1, TM 1-1500-204-23-3 through TM 1-1500-204-23-10, dated 31 July 1992, supersedes TM 55-1500-204-25/1, dated 6 April 1970, including all changes.

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NO. 1

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PRECAUTIONARY DATA

Personnel performing instructions involving operations, procedures, and practices which are included or implied in this technical manual shall observe the following instructions. Disregard of these warnings and precautionary Information can cause serious Injury, death, or an aborted mission.

WARNINGS, CAUTIONS, and NOTES are means of attracting attention to essential or critical Information in a manual. Definitions are outlined as follows:

WARNING: An operating or maintenance procedure, practice, condition, statement, etc., which If not strictly observed, could result in injury to or death of personnel.

CAUTION: An operating or maintenance procedure, practice, condition, statement, etc., which If not strictly observed, could result in damage to, or destruction of equipment or loss of mission effectiveness or long term health hazards to personnel.

NOTE: An essential operating or maintenance procedure, condition, or statement, which must be highlighted.

WARNING

USING SOLVENTS/PAINTS

Standard precautions such as fire prevention and adequate ventilation shall be exercised when using solvents or applying primer and coating.

Wear gloves or gauntlets when handling solvents as solvents may cause skin disorders.

Observe fire precautions when using aliphatic naphtha, Federal Specification TT-N-95.

Do not use drycleaning solvent, Federal Specification P-D-680, near oxygen storage or transfer systems; the combination of these two will form a highly explosive mixture.

Follow the Permissible Exposure Limit (PEL) and use Personal Protective Equipment (PPE) as outlined in NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards.

Store in nonflammable storage cabinets when not in use.

HOT BRAKES

If it is necessary to approach a wheel with a hot brake, do so either from directly in front or directly behind the aircraft.
GROUND SUPPORT EQUIPMENT

Always operate all equipment in accordance with the operator's manual.

To prevent accidental falls, appropriate maintenance platforms/safety stands illustrated in appropriate workstand manuals or any other approved locally procured/manufactured safety stands/restraint equipment will be used when working (above 10 feet) on aircraft in a non-tactical environment.

Install safety lock when an adjustable-height maintenance platform is in use.

Ensure the air hose used with compressed air is safe for the pressure being handled.

FIRE EXTINGUISHERS

Monobromotrifluoromethane (CF$_3$Br) is highly volatile, but not easily detected by odor. Although nontoxic, CF$_3$Br shall be considered in the same class as other freons and carbon dioxide, i.e., capable of causing danger to personnel primarily by reduction of oxygen available for proper breathing. The liquid may cause frostbite or low temperature burns if allowed to come in contact with the skin.

Bromochloromethane (CB) is a narcotic agent of moderate intensity, but of prolonged duration. It is considered less toxic than carbon tetrachloride, methylbromide, or the usual products of combustion. Normal precautions should be taken while using bromochloromethane, including the use of oxygen masks.

HYDRAULIC FLUID

To avoid contamination, do not use previously opened cans of hydraulic fluid. A new, sealed can of fluid must be opened and used when opening can, clean top and use a clean sharp, unplated instrument to prevent contamination.

COMPRESSED AIR

Compressed air shall not be used for cleaning purposes unless reduced to less than 30 psi and then only with effective chip-guarding and personal protective equipment.

NOISE HAZARD

Noise levels reached during ground runup of Army aircraft are of a level that may cause permanent hearing loss. Maintenance personnel shall wear adequate hearing protection when working on aircraft with engines in operation.

PROPER USE OF PLATED TOOLS

Use only chrome plated steel or unplated steel tools for disassembly or reassembly procedures described in this manual. Use of cadmium or zinc plated tools is not permitted since these platings are prone to chipping and flaking. Should these chips or flakes become embedded in aircraft parts, galvanic corrosion will result. Should these chips or flakes enter fuel or oil wetted components, they may eventually clog the filter or produce intergranular attack of nickel or titanium base alloys at elevated temperature. All tools regardless of type plating should be serviceable and free of chipping.
SPECIAL INSTRUCTIONS

All equipment must be operated per the manufacturer’s operating instructions. If unavailable, instructions for the use and care will be developed SOPs will be prepared and used for all shop operations (refer to AR 38595). The supporting Safety Office will use their expertise to provide assistance. Guidance for industrial hazards can be found in Code of Federal Regulations 29 CFR 1910, and Chemical Hazards in NIOSH/OSHA Guidelines for Chemical Hazards.
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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS
You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 located in the back of this manual directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5230. You may also submit your recommended changes by E-Mail directly to Is-lp@redstone.army.mil or by fax 256-842-6546/DSN 788-6546. A reply will be furnished directly to you. Instruction for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028.

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