KS-13835 READERS AND KS-13882 PERFORATORS

PROCEDURES FOR CLEANING

1. GENERAL

1.01 This section describes the method of cleaning KS-13835 readers and KS-13882 perforators using the KS-13928 cleaning cabinet and cleaning with compressed air. It also covers detailed methods for cleaning various parts where compressed air cleaning may not be effective.

1.02 This section is being reissued to revise the List of Tools and Materials, to reduce the amount of compressed air used in cleaning to 30 psi to conform with OSHA requirements, and add two notes to Part 5 regarding periodic cleaning on KS-13835 readers. This revision affects the Equipment Test List.

1.03 The requirements and adjusting procedures for maintaining the KS-13928 cleaning cabinet are covered in Section 034-349-701 and the piece part data and replacement procedures for the cabinet are covered in Section 034-349-801.

2. DESCRIPTION OF KS-13928 CLEANING CABINET

2.01 The KS-13928 cleaning cabinet shown in Fig. 1 and 2 is divided into two parts by a shelf on which apparatus to be cleaned is placed.

2.02 The lower portion of the cabinet houses a compressor to which is attached a length of hose terminating at a duster nozzle, two exhaust fans used to draw the dust and dirt from the upper portion of the cabinet and two filters for collecting the dust and dirt from the air before it is discharged from the cabinet. The compressor and exhaust fans are controlled by two switches at the front lower right hand side of the cabinet. Access to the compressor and filter compartment is obtained through two doors. The door on the compressor side of the cabinet is provided with a safety switch which opens the circuit to the compressor and exhaust fans when this door is open.

2.03 The upper portion of the cabinet consists of an enclosure with transparent plastic windows at each side and at the top and a transparent plastic shield at the front. This shield does not extend across the entire front of the cabinet. There is a space of approximately 6" at each side. The purpose of the spaces at each side of the shield is to provide an access to the apparatus being cleaned while the shield is closed. The shield is hinged at the top and may be rotated so it rests on the top of the cabinet thus leaving the front open so the apparatus to be cleaned can be placed on or removed from the shelf. When cleaning operations are being performed the shield is lowered so the apparatus being cleaned is entirely enclosed except for these spaces at each side of the shield. Through these spaces the compressed air may be directed on the apparatus and the apparatus shifted as required by the cleaning operation. The exhaust fans draw the dust and other foreign material blown from the apparatus through an opening at the back of the shelf leading to the lower compartment. The filters in the lower portion of the cabinet retain the dust and dirt in an enclosure between the filters and in the filters themselves. Illumination is provided by lamps above the shelf.

2.04 The filter cells should be inspected periodically and changed as often as necesary to permit free passage of air through the filters. Heavy leather gloves should always be worn when handling the filter cells.

2.05 Air from the compressor is stored in a tank and the pressure in the tank is controlled by a safety valve. A pressure reducing valve is furnished in the line between the tank and the hose to provide for adjustment of the air pressure at the duster nozzle for most effective cleaning. A gauge for checking this pressure is located adjacent to the reducing valve. In order to prevent frequent operation of the safety valve on the storage tank, the duster nozzle is designed to permit a small continuous flow of air when the nozzle valve is closed. Occasional operation of the safety valve can be expected.

Caution: Due to the relatively high pressure and velocity of the air at the nozzle, it is imperative that the air stream is not

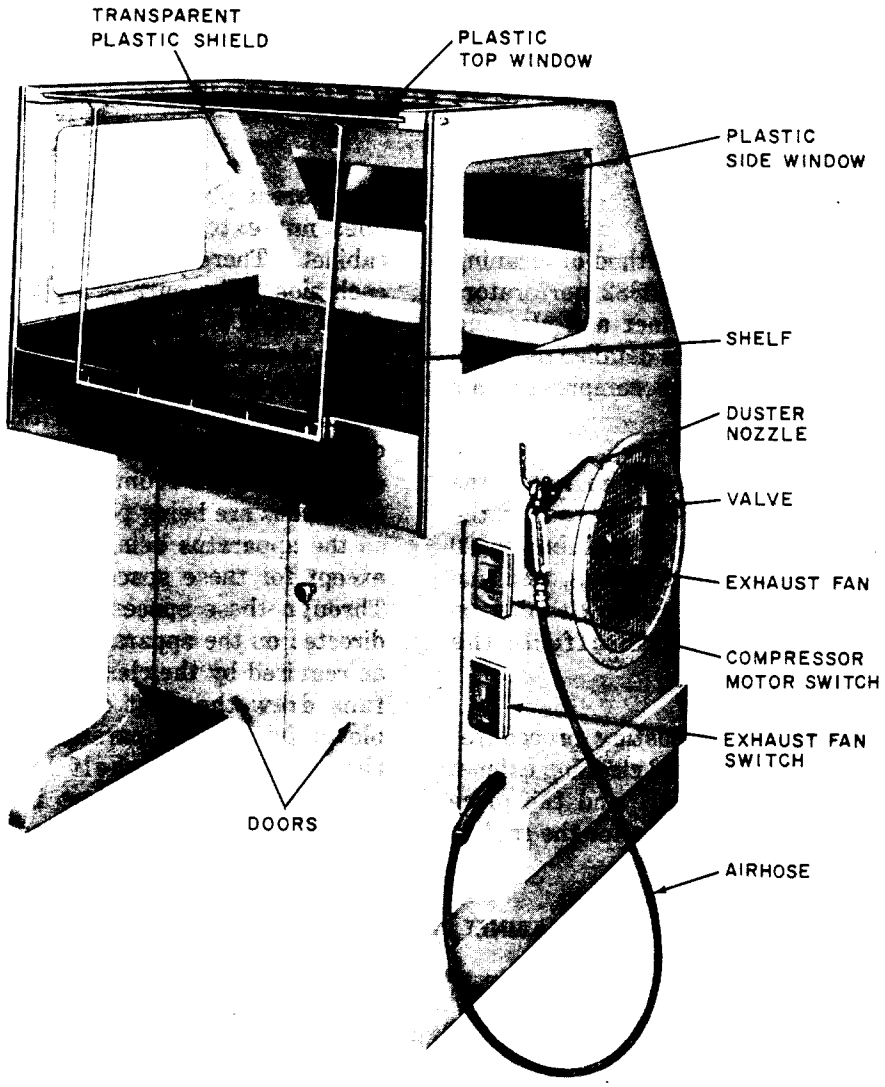

Fig. 1—Exterior of KS-13928 Cleaning Cabinet

directed toward the eyes, ears, nose, or mouth or any other portion of a person's body. Compressed air should not be employed to blow dust from hands, hair or clothing or to produce a cooling sensation. Failure to observe these precautions may result in serious injury.

3. TOOLS AND MATERIALS

3.01 *List of Tools and Materials*

CODE OR SPEC. NO.	DESCRIPTION
TOOLS	
359	Magnet core and armature cleaning tool
650A	♦Tool (guard)♦
MATERIALS	
KS-2423	Cloth
KS-6320	Orange stick

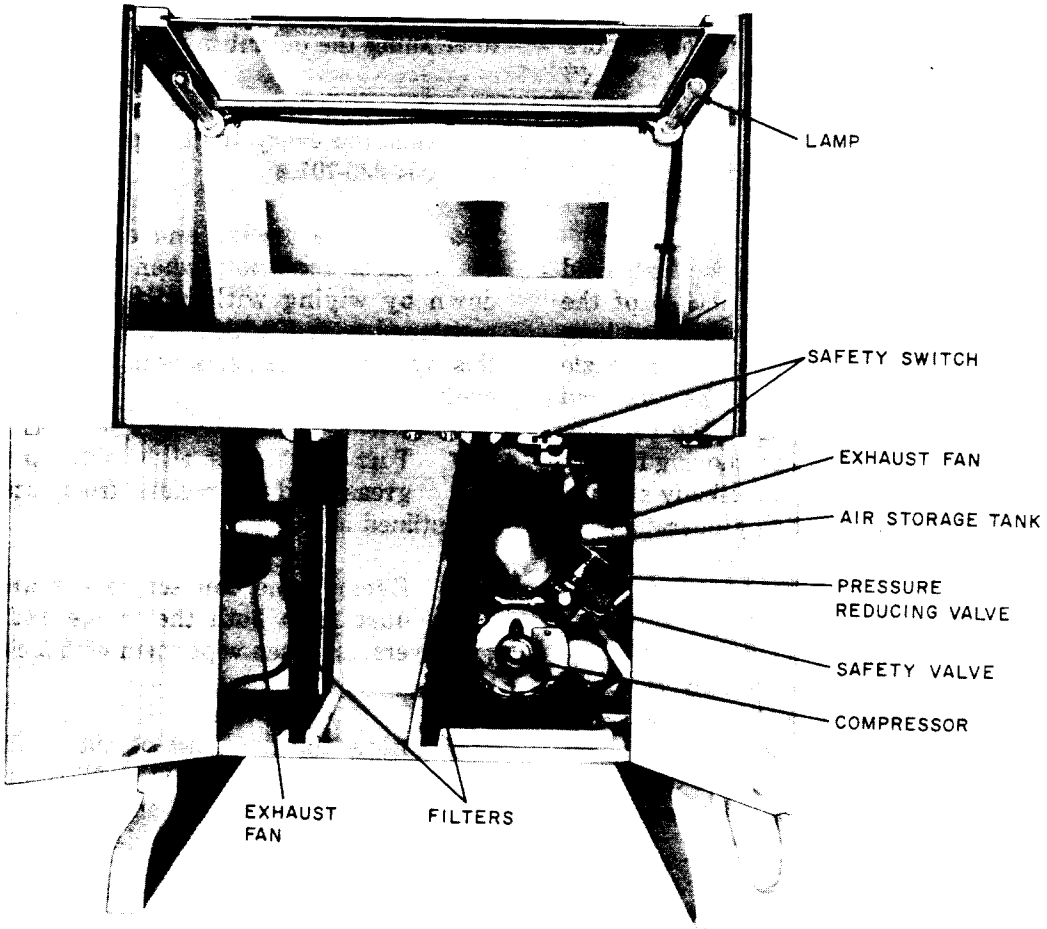

Fig. 2—Interior of KS-13928 Cleaning Cabinet

KS-7860	Petroleum spirits
—	Flashlight
—	Leather gloves

4. PREPARATION

4.01 Place the perforator or reader on the shelf of the cleaning cabinet and lower the shield.

4.02 Turn on the compressor motor by operating the associated switch to the "ON" position.

4.03 After the motor has been running for approximately one minute, check the air pressure as indicated on the pressure gauge on the compressor. The pressure gauge may be seen by looking through the fan grill and directing a flashlight on the gauge. If the position of the exhaust fan blades interferes with viewing the gauge, direct a spurt of air from the duster nozzle against the blades. The pressure should be ◆30 pounds or less.

Note: Compressed air of 30 psi is the maximum allowed by OSHA for cleaning.◆

If the pressure is incorrect, open the lower doors, and adjust the pressure reducing valve to obtain the correct pressure. To decrease the pressure, turn the valve handle in a counterclockwise direction. To increase the pressure, turn the handle in a clockwise direction. Close the doors and after approximately one minute, again check the air pressure. If it is still incorrect, make further adjustment of the pressure reducing valve and then check the pressure as outlined above. Continue

making adjustments until the correct pressure is obtained. Then turn on the exhaust fan motors by operating the associated switch to the "ON" position. Check that both exhaust fans are operating.

5. CLEANING PROCEDURE

5.01 *General:* Unless otherwise specified, hold the nozzle within one or two inches of the part being cleaned, and hold it in one position long enough to clean the part thoroughly. The nozzle should be held in a position to blow the dust and foreign material toward the back of the cabinet. Spurts of air are more effective in removing foreign materials from the apparatus than a steady stream. Take special care during the cleaning operation not to damage contacts or wiring.

Cleaning Readers

Note: ◗Readers are to be periodically vacuumed or cleaned with compressed air every 100 hrs of usage or every 2 weeks, whichever comes first, unless units returned to equipment maintenance centers for inspection. See Section 034-335-701.◖

5.02 With the reader resting on the shelf toward the rear of the cabinet, base down and with the tape chute toward the front and the contact covers in place, direct the nozzle into the tape chute. Loosen the tape chute locking screws, lift the chute and direct the air stream to the underside of the tape chute and the area normally covered by the chute. Restore the chute to its normal position and tighten the tape chute locking screws.

5.03 Direct the nozzle toward the drum and clean the drum and surrounding area. Move the drum to different positions during the cleaning operation by setting the dial at 0°, pressing the drum release plunger and moving the drum with the fingers.

5.04 Clean with compressed air other parts accessible from the top turning the reader in different positions but keeping the base down and the contact covers in place.

5.05 Make sure that the filler plug and drum release plunger are securely tightened and then turn the reader upside down and clean with compressed air all parts on the underside that are accessible from this position. Pay particular attention to cleaning the output tape chute.

Note: ◗Grease and oily residue should be removed every 100 hrs per Table A in Section 034-335-701.◖

5.06 Remove grease and oily residue from all parts accessible when the reader is upside down by wiping with a KS-2423 cloth slightly moistened with KS-7860 petroleum spirits. Follow this by wiping the parts with a clean dry KS-2423 cloth.

5.07 Turn the reader right side up and remove grease and oily residue from accessible parts as outlined in 5.06.

5.08 Remove the contact covers and blow the dust from both the inside and outside of the covers, and then wipe them with a clean KS-2423 cloth.

5.09 Blow the dust out of the contact springs holding the nozzle 4" to 5" from the springs to avoid damage to them and to the adjustments. Direct the air from each side of the springs and then down from the top.

5.10 Remount the covers and remove the reader from the cleaning cabinet.

5.11 Lubricate the parts as outlined in Section 034-335-701.

5.12 Test the operation of the reader as outlined in Section 034-335-701.

Cleaning Perforators

5.13 With the perforator resting on the shelf, right side up, clean with compressed air the parts of the pin guide that can be reached from the top.

5.14 Clean with compressed air the perforating magnets and the armature air gaps, the spaces between the magnets, and all surfaces accessible from the top.

5.15 Turn the perforator upside down, and place a ◗650A tool◖ on the static remover.

5.16 Clean the drum with compressed air. Pay particular attention to cleaning out the inside of the drum. Operate the stepper manually to obtain drum rotation and move the drum to different positions during the cleaning operation.

5.17 Clean with compressed air both the input and ouput tape chute.

5.18 Clean all surfaces accessible on the bottom of the perforator.

5.19 Remove grease and oil residue from all parts by wiping with a KS-2423 cloth slightly moistened with KS-7860 petroleum spirits. Follow this by wiping the parts with a clean dry KS-2423 cloth. To remove grease or debris from the cutter assembly, use a KS-2423 cloth wrapped around a KS-6320 orange stick and operate the cutter mechanism manually as required to gain access to the cutter assembly.

5.20 Clean the stepping magnet core gap. To do this, insert the 359 magnet core and armature cleaning tool between the armature and core, and apply a sufficient pressure to the bottom of the armature to force it against the cleaning tool and then forcibly withdraw the tool. Repeat this operation several times so as to remove dust and loose wear products which may have accumulated between the armature and the core.

5.21 Remove the ◗650A tool◖ from the static remover.

5.22 Remove the perforator from the cleaning cabinet.

5.23 Lubricate and make operation test in accordance with Section 034-306-701.