RECONDITIONING OF OPERATOR AND SUPERVISOR CHAIRS

METAL TYPE

1. GENERAL

1.01 This section covers the information necessary for the reconditioning and the ordering of parts to be used in the maintenance of 1- through 5-type operator chairs, KS-15531- and KS-15784-type operator chairs, and KS-5587-type supervisor chairs.

1.02 This section is reissued primarily to add ordering and replacement list numbers for the mahogany and green colored KS-5587-type supervisor chair foot rests, stabilizing legs, and purse holders; to add the supplier's name of the foot rest assemblies to the List of Materials; to add ordering and replacement information for the KS-15531-type offset spindle chairs having ball bearings; to show KS-15784-type instead of KS-15531-type seats and back rests as replacements on all KS-15531-type chairs, except the KS-15531-type chairs having ball bearings; and to make other changes of a minor nature.

1.03 Part 2 of this section covers the piece-part numbers and the corresponding names of the parts which it is practicable to replace in the field in maintenance of the 1- through 5-type operator chairs, KS-15531- and KS-15784-type operator chairs, and KS-5587-type supervisor chairs. No attempt should be made to replace parts not designated. Part 2 also contains explanatory figures showing the different parts. This information is called Piece-part Data.

1.04 Part 3 of this section covers the approved procedures for the replacement of the parts covered in Part 2. This information is called Replacement Procedures.

1.05 Part 4 of this section covers the approved procedures for making minor repairs on the operator and supervisor chairs. This information is called Minor Repairs.

2. PIECE-PART DATA

2.01 The figures included in this part show the various piece parts in their proper relation to other parts of the chair. The piece-part numbers of the various parts are given together with the names of the parts as listed by the Western Electric Company Merchandise Department. When these names differ from those in general use in the field, the latter names, in some cases, are shown in parentheses.

2.02 When ordering parts for replacement purposes, give both the piece-part number and the name of the piece part. For example, P-260630 Screw or KS-15531, L21 Back Rest. Do not refer to the section number or to any information shown in parentheses following the piece-part number.

2.03 Lower units of 1- through 5-type operator chairs that require replacement of the rubber-covered foot ring should be returned to the Western Electric Company for repair.

2.04 Lower units of No. 1A, 1B, 1C, and 5AR operator chairs that require replacement of the cotter-pin-type chair rests should be returned to the Western Electric Company for repair.

2.05 Cane seats of operator chairs that require recaning should be returned to the Western Electric Company for repair.

2.06 If it is necessary to return the chair to the Western Electric Company for repair, accessories such as purse holders, seat supports, back rest pads, supply cabinets, stabilizing leg assemblies, and ticket holders should be removed before the chair is sent to the Western Electric Company.

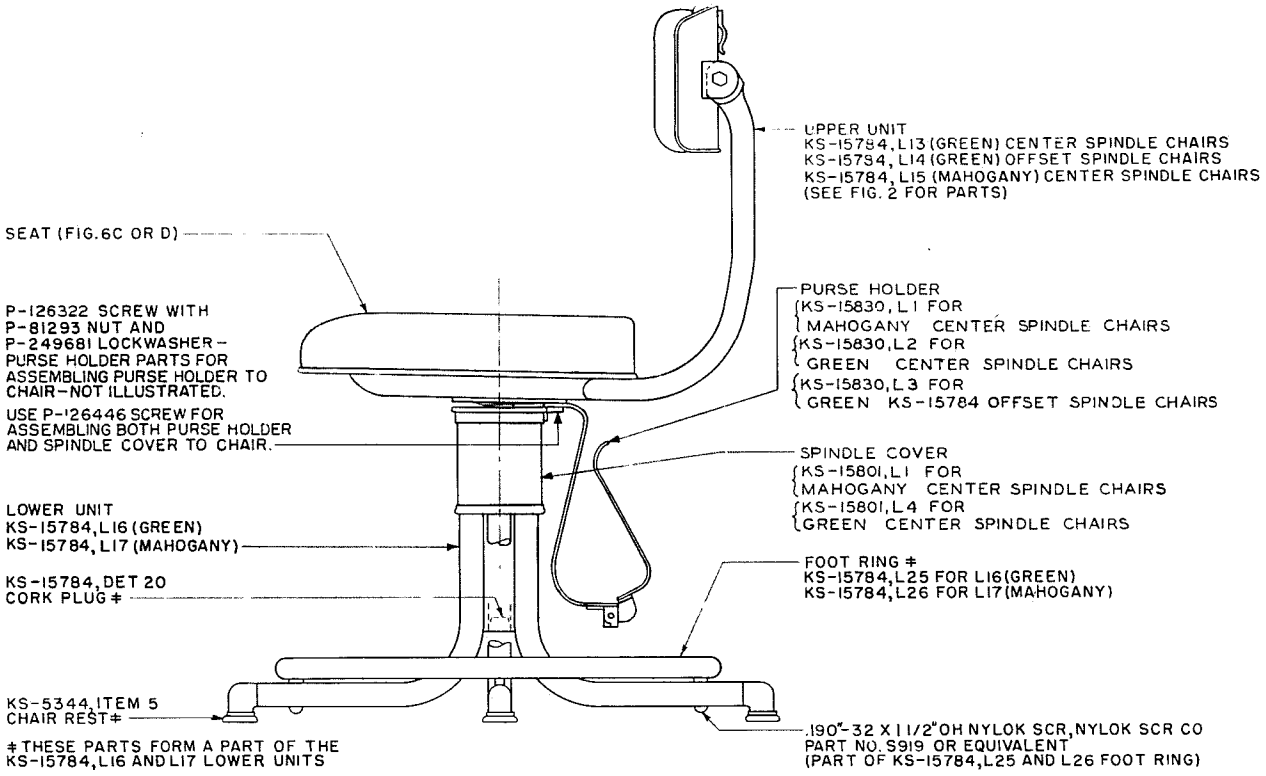
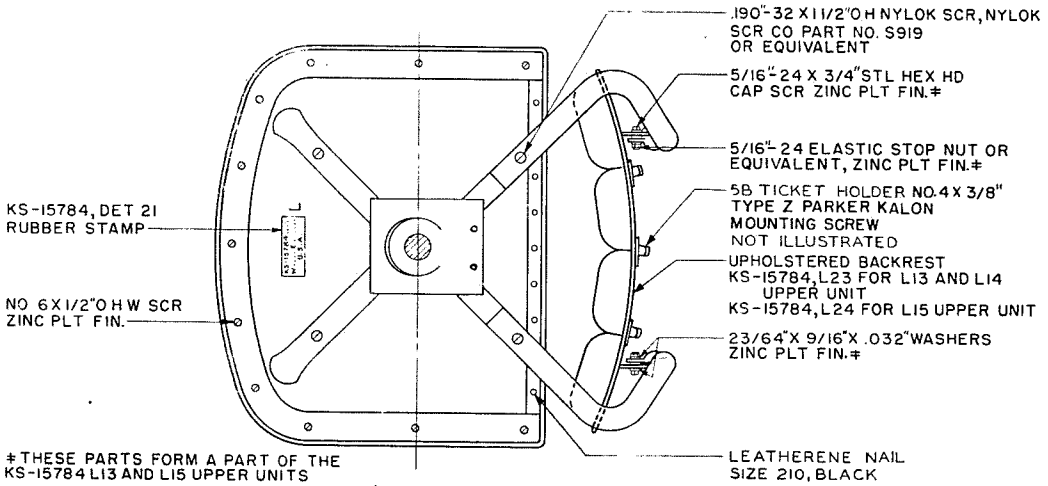


Fig. 1 – Piece-part Information for KS-15784-type, 18-inch Operator Chairs



SEE ADDENDUM

Fig. 2 – Bottom View of Upper Unit — KS-15784-type Operator Chairs

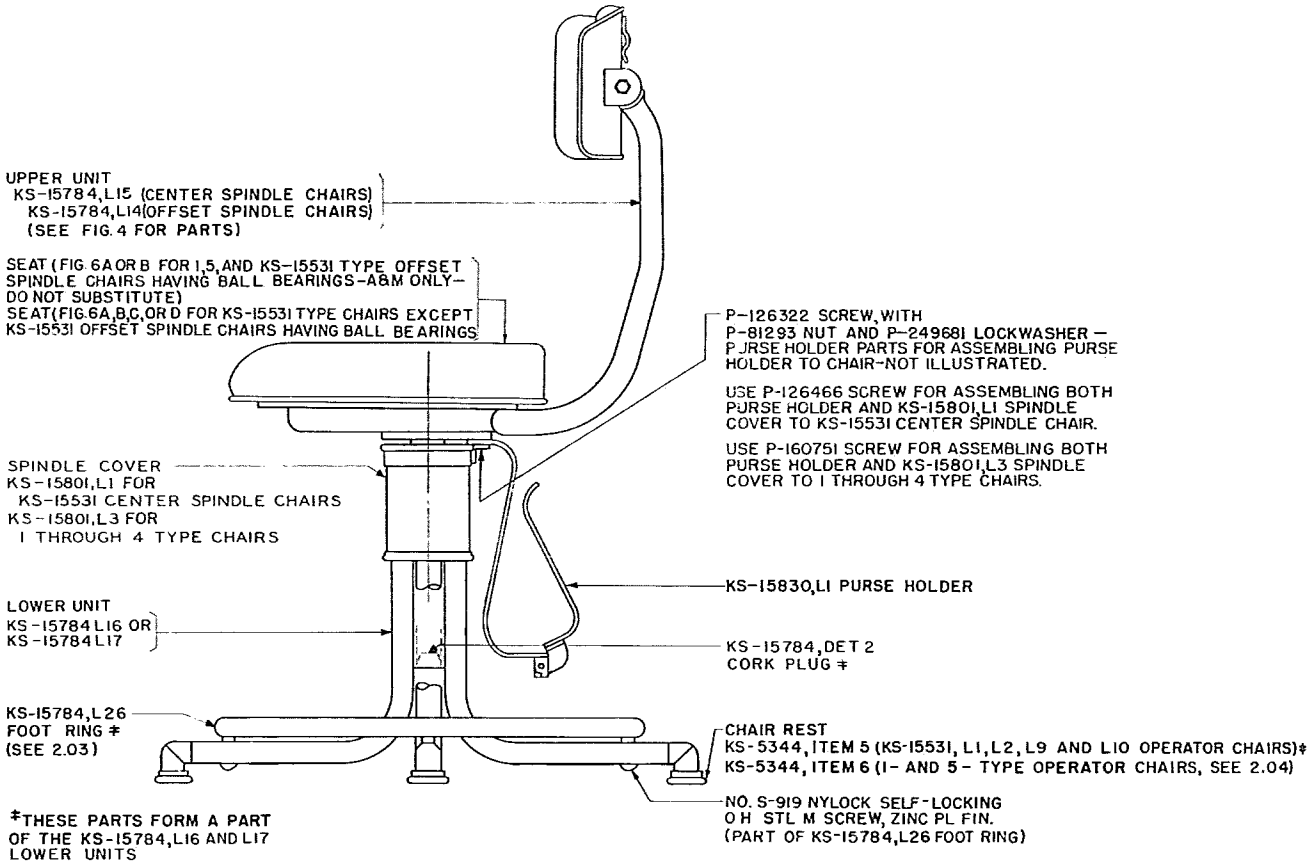


Fig. 3 — Piece-part Information for KS-15531-type 17-inch Operator Chairs (Illustrated), and 1- and 5-type Operator Chairs

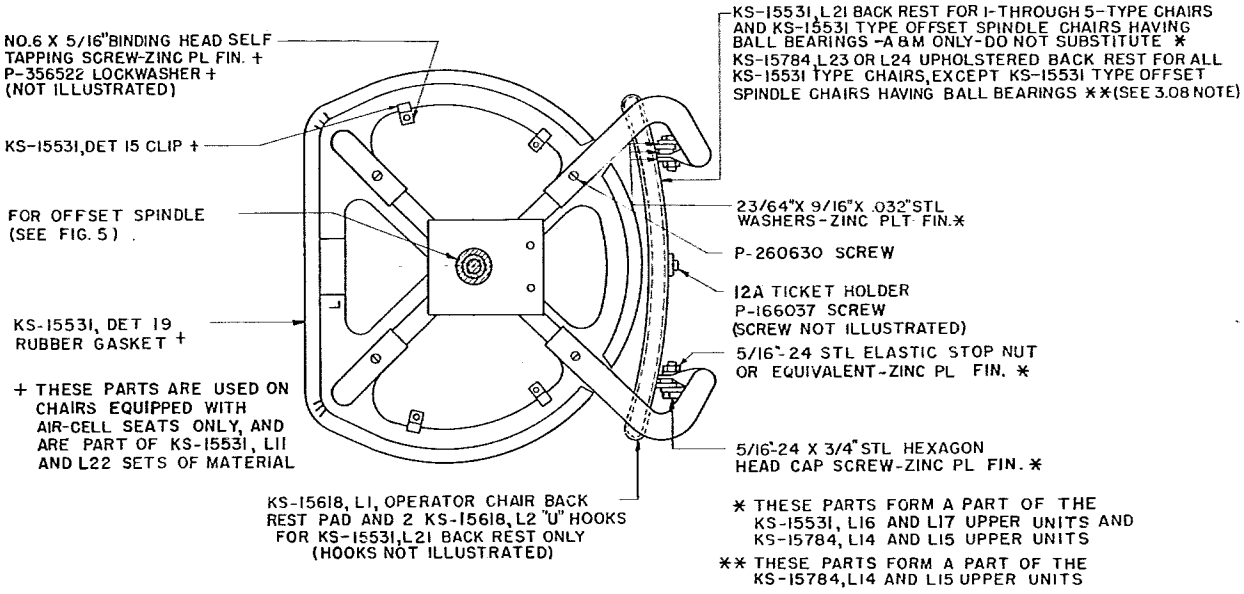


Fig. 4 — Bottom View of Upper Unit — KS-15531-type Operator Chairs

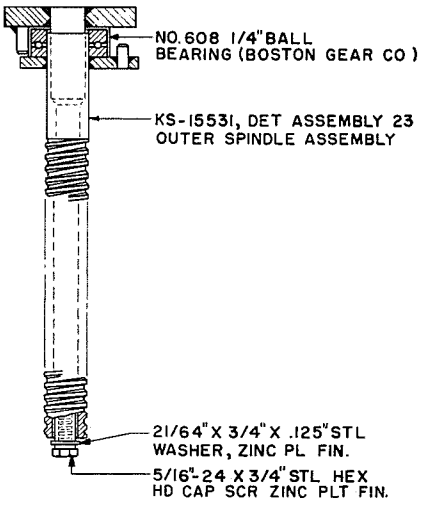


Fig. 5A — Ball Bearing Type

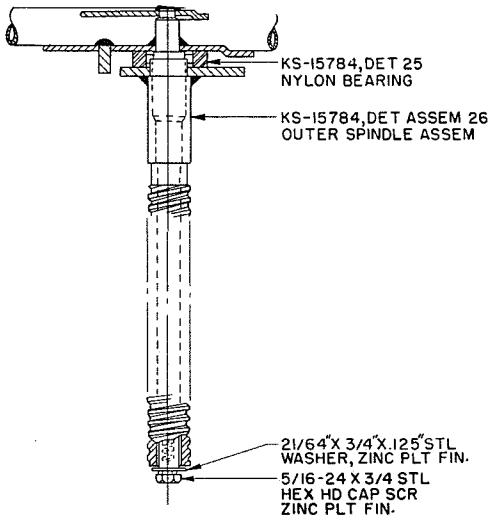


Fig. 5B — Nylon Bearing Type

Fig. 5 — Stop-pin-type Spindle (Offset Spindle Chairs Only)

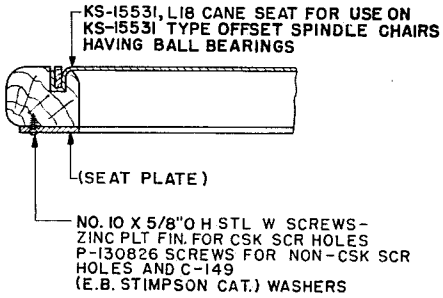


Fig. 6A — Cane Seat

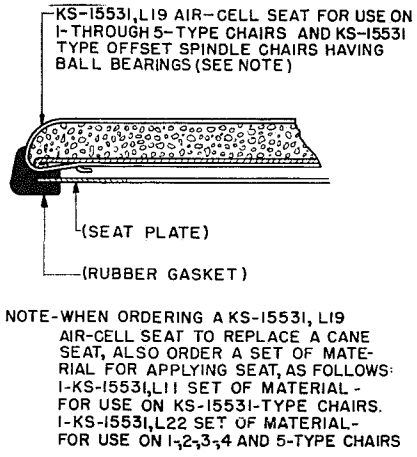


Fig. 6B — Air Cell Seat

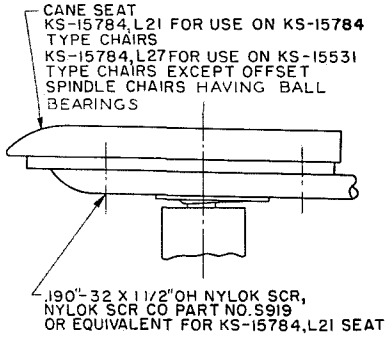


Fig. 6C — Cane Seat

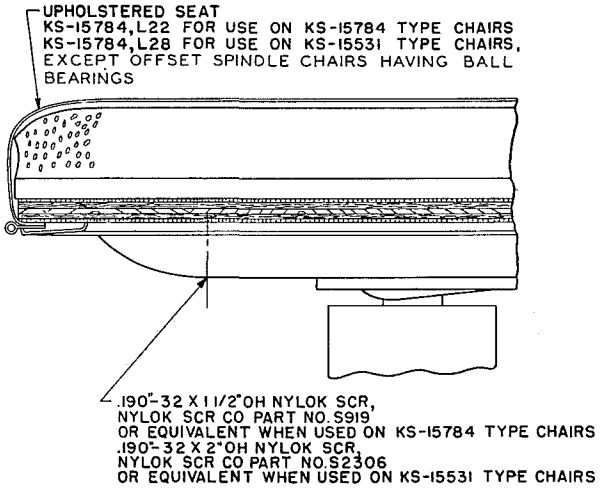


Fig. 6D — Upholstered Seat

Fig. 6 — Seats

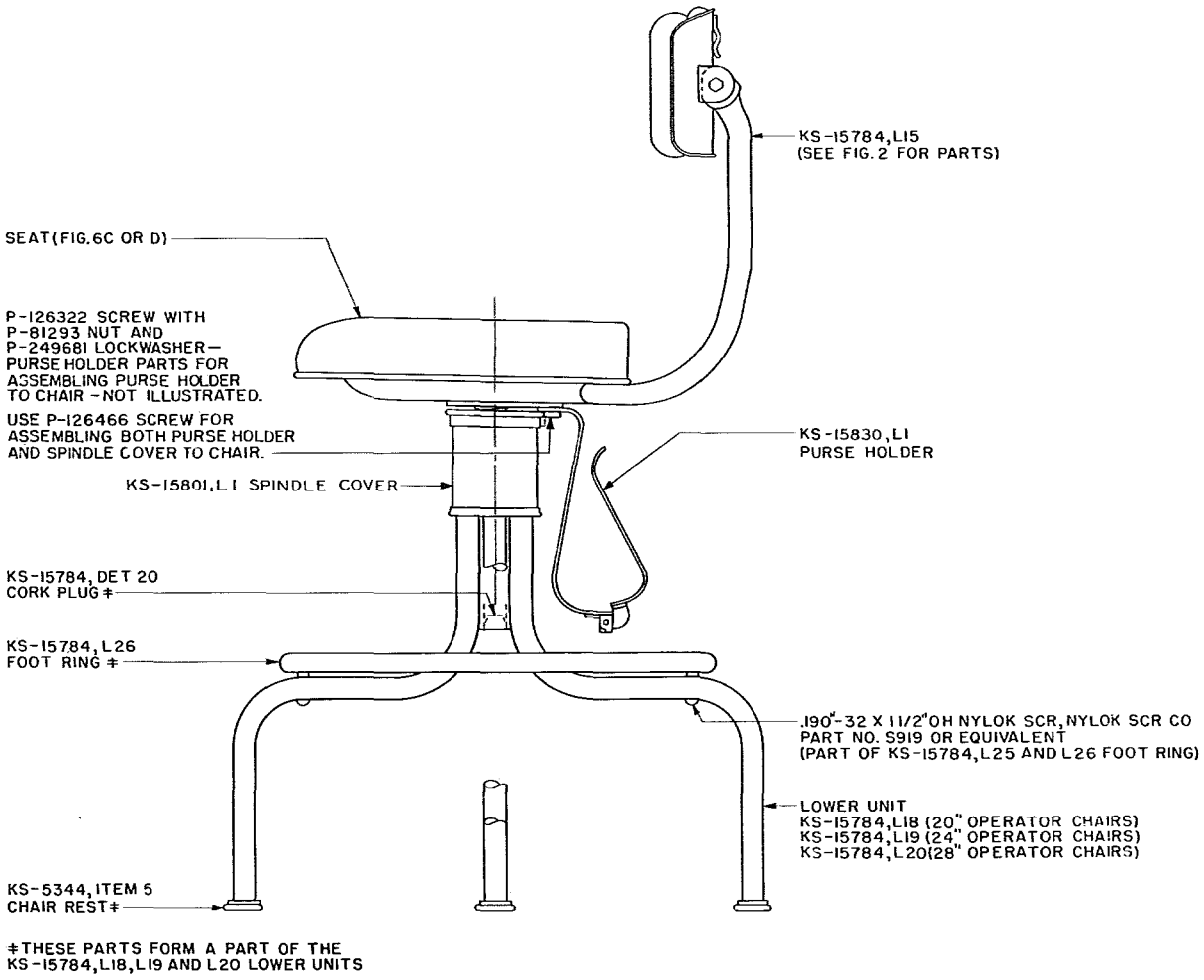


Fig. 7 — Piece-part Information for KS-15784-type, 20-, 24-, and 28-inch Operator Chairs

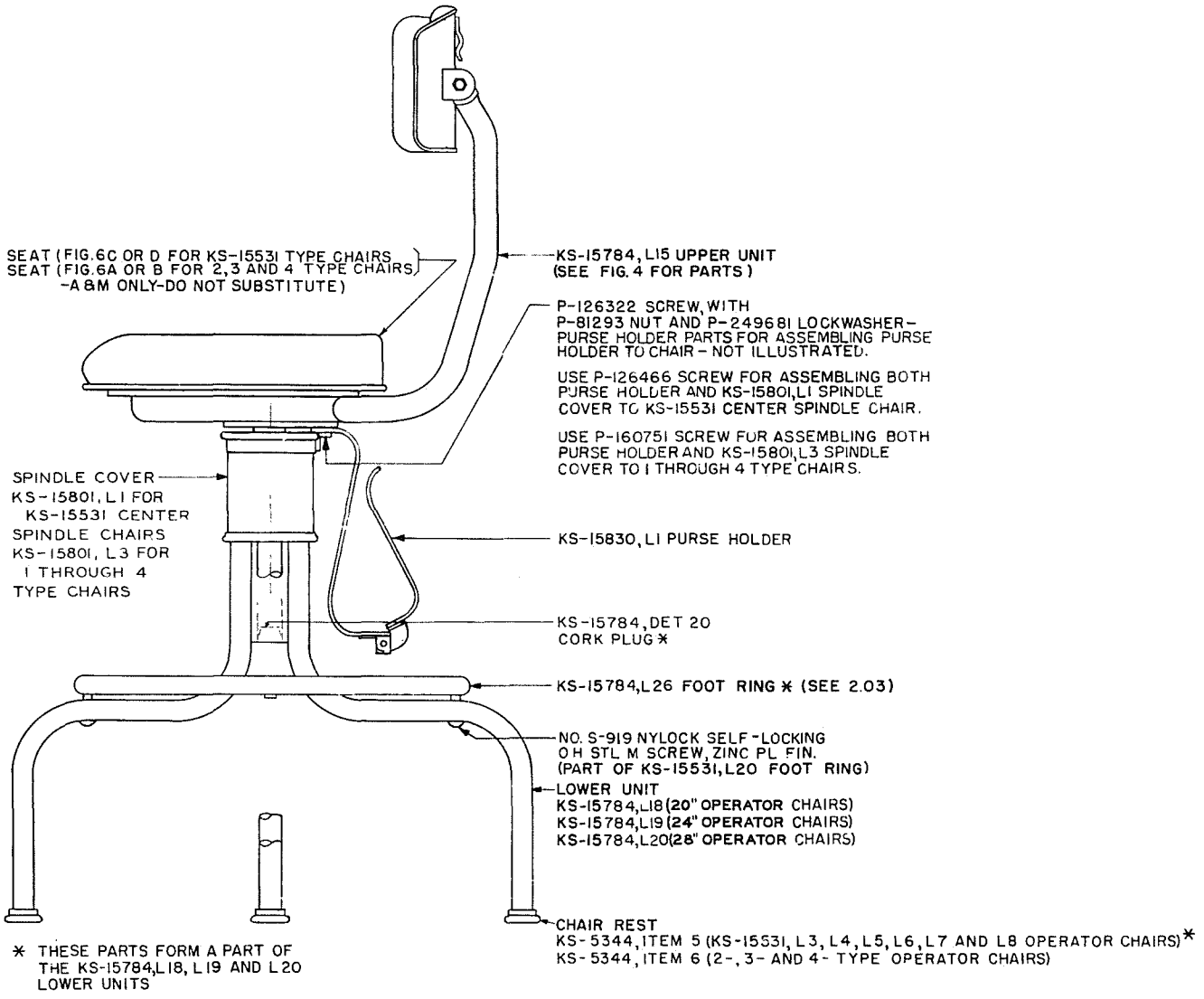
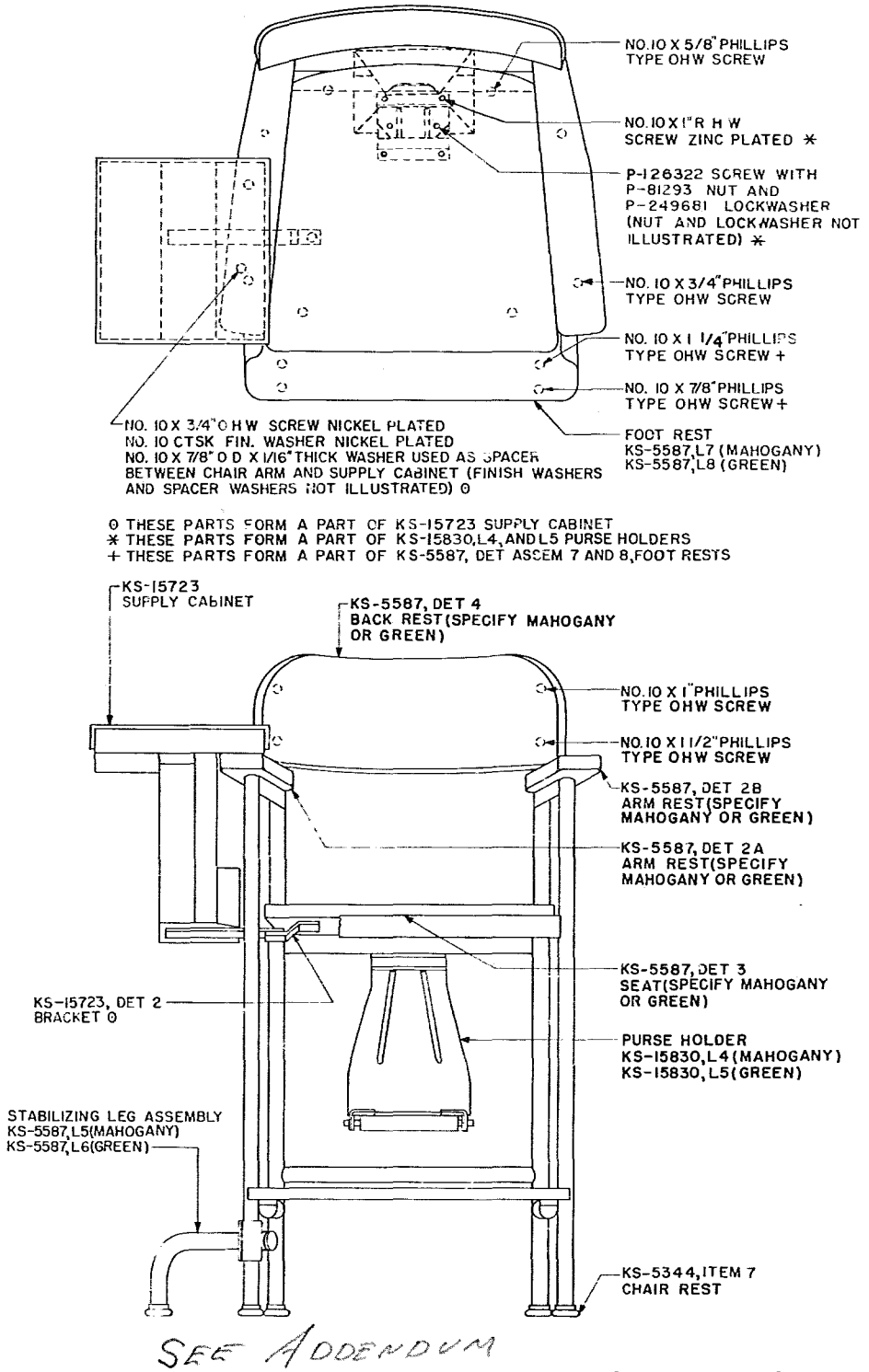


Fig. 8 — Piece-part Information for KS-15531-type, 20-, 24-, and 28-inch Operator Chairs (Illustrated), and 2-, 3-, and 4-type Operator Chairs



SEE ADDENDUM

Fig. 9 – Piece-part Information for KS-5587-type, 25-inch Supervisor Chairs (Illustrated) and 33-inch Supervisor Chairs

3. REPLACEMENT PROCEDURES

3.01 *List of Tools and Materials*

CODE OR SPEC NO.	DESCRIPTION
TOOLS	
KS-2993	Flat Brush
R-1060	Putty Knife
R-1482	H-type Combination File
R-2485	Allen Socket Screw Wrench
—	Ratchet-B Brace, 10 Inches, With 1/2-inch Diameter, 82-degree Angle Countersink
—	Sign Painter's Brush, Devoe & Raynolds Co, No. 244 (or equivalent), 1 Inch
—	Brush, Osborn Manufacturing Co, No. 816 (or equivalent)
—	Brush and File Card, Henry Disston & Sons, No. 2 (or equivalent)
—	Cold Chisel, Billings and Spencer Co, Model YA, 1/2 Inch (or equivalent)
—	Safety Goggles, American Optical Co, No. 3039-50 With Clear Lenses (or equivalent)
—	1-pound Ball-peen Hammer
—	Combination Pliers (or equivalent)
—	3-inch Cabinet Screwdriver
—	4-inch Regular Screwdriver
—	5-inch Regular Screwdriver
—	Phillips-type Screwdriver, No. 3
—	13/32-inch and 19/32-inch Open-end Flat Wrench, J. H. Williams & Co, No. 24 (or equivalent)
—	1/2-inch Offset Hexagon Socket Wrench, J. H. Williams & Co, No. 264A, (2 Required)
MATERIALS	
KS-6232	Oil
KS-6438	Lubricating Oil
KS-7860	Petroleum Spirits
KS-14427	Cleaning Emulsion
KS-14666	Cleaning Cloth
KS-14670	Commutator Cloth
—	No. S 919 Self-locking Machine Screws, Zinc-plated Finish, 1-1/2 Inches Long, The Nylok Corp
—	No. S 2306 Self-locking Machine Screws, Zinc-plated Finish, 2 Inches Long, The Nylok Corp
KS-5587, L7	Mahogany Foot Rest Assemblies, Furnish Four Phillips-type O.H.W. Screws, Two No. 10 by 7/8 Inch Long and Two No. 10 by 1-1/4 Inches Long, Samuel Moore and Co, Mantua, Ohio
KS-5587, L8	Green Foot Rest Assemblies, Furnish Four Phillips-type O.H.W. Screws, Two No. 10 by 7/8 Inch Long and Two No. 10 by 1-1/4 Inches Long, Samuel Moore and Co, Mantua, Ohio
—	Anstac-2M Chemical Development Corp, 1-quart Bottle
—	Burlap, Felt, or Similar Material
—	Rubber-to-metal Cement No. 243, Prestite Engineering Co, St. Louis, Mo., 1-gal. Container or

CODE OR SPEC NO.	DESCRIPTION
MATERIALS	
—	Minnesota Mining No. 870 Adhesive, Adhesive and Coating Division of Minnesota Mining Co, 1-quart Container
—	No. 150 Aluminum Oxide Cloth 1/2-inch Diameter Dowel, Approximately 12 Inches Long
—	Air-drying Brushing Enamel No. 1576 (Mahogany), The Newark Varnish Works, Newark, N. J.
—	Air-drying Brushing Enamel No. 1581 (Walnut), The Newark Varnish Works, Newark, N. J.
—	Air-drying Brushing Enamel No. 1580 (Dark Oak), The Newark Varnish Works, Newark, N. J.
—	Air-drying Brushing Enamel No. 3-18185 (Pacific Blue-green) American Lacquer and Solvent Co, Phoenixville, Pa.
—	Garnet Finishing Paper—Grit No. 2/0-100
—	Garnet Finishing Paper—Grit No. 6/0-220
—	Silicon Filler Polish
—	No. 00 Powder Pumice
—	White Shellac Solution and Thinner per AT&TCo Specification No. 6623
—	Liquid Soap
—	Filler Stain (Mahogany) for 104AL Finish
—	Filler Stain (Walnut) for 104AR Finish
—	Filler Stain (Dark Oak) for 104AM Finish
—	VD-2930 Rubbing Varnish Pittsburgh Plate Glass Co, or No. 8 Booth Rubbing Varnish, Pratt & Lambert Co, Inc

A. General

3.02 No replacement procedures are specified for screws or other parts where the procedure consists of a simple operation.

3.03 To replace an upper or lower unit of the 1- through 5-type, KS-15531- and KS-15784-type chairs, remove the part by unscrewing the upper unit from the lower unit and screw the new part in place. Walnut-, oak-, or green-finished units may be assembled interchangeably with mahogany-finished units.

B. Operator Chairs

3.04 To replace a KS-15531, L18 cane seat, proceed as follows:

(a) ***To replace a KS-15531, L18 cane seat by a new KS-15531, L18 cane seat,*** turn the chair upside down, remove the seat-mounting screws with the 4-inch regular screwdriver, and remove the seat. Align the new cane seat with the seat plate, allowing a space of at least 1/8 inch between the back rest posts (including post braces) and the outside edge of the seat. If necessary, the desired space may be obtained by sandpapering and refinishing the outside edge of the seat, where required. Fasten the seat in place by replacing the seat-mounting screws and tightening them securely. Clean the seat with a clean KS-14666 cloth.

see addendum

(b) ***To replace a KS-15531, L18 cane seat by a KS-15784, L27 green cane seat,*** on all KS-15531-type operator chairs, except the offset-type chairs with ball bearings, turn the chair upside down, remove the seat-mounting screws with a 4-inch regular screwdriver, and

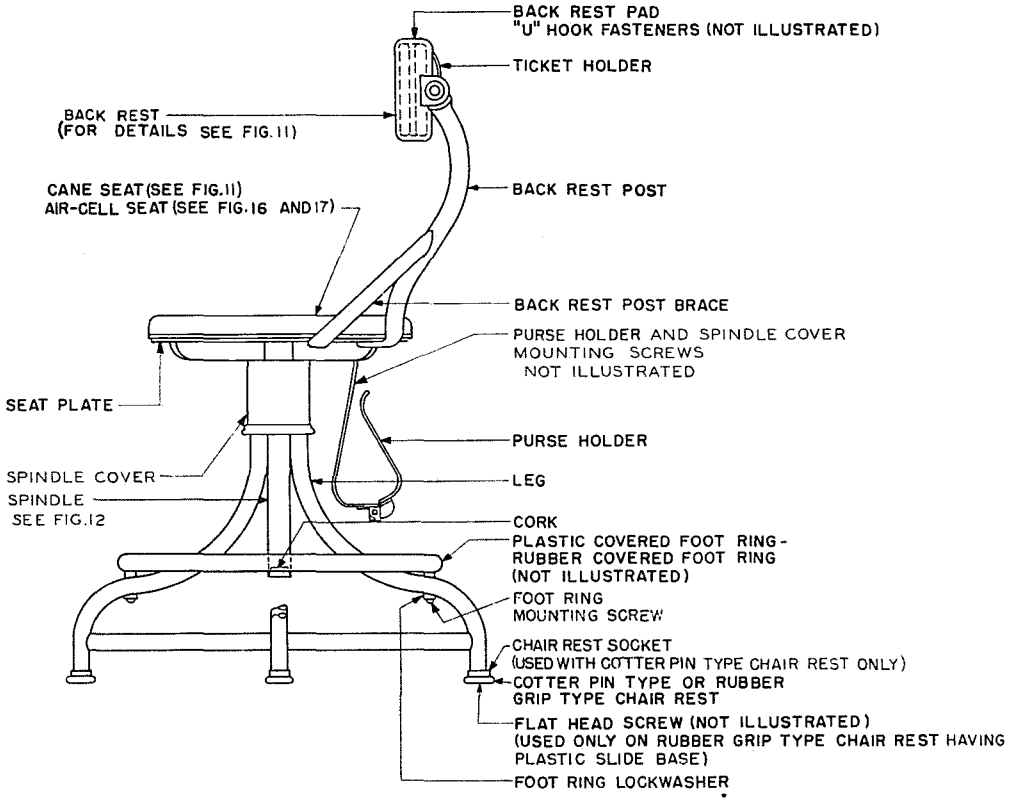


Fig. 10 — 1- Through 5-type Operator Chairs (2-, 3-, and 4-type Operator Chairs — Illustrated)

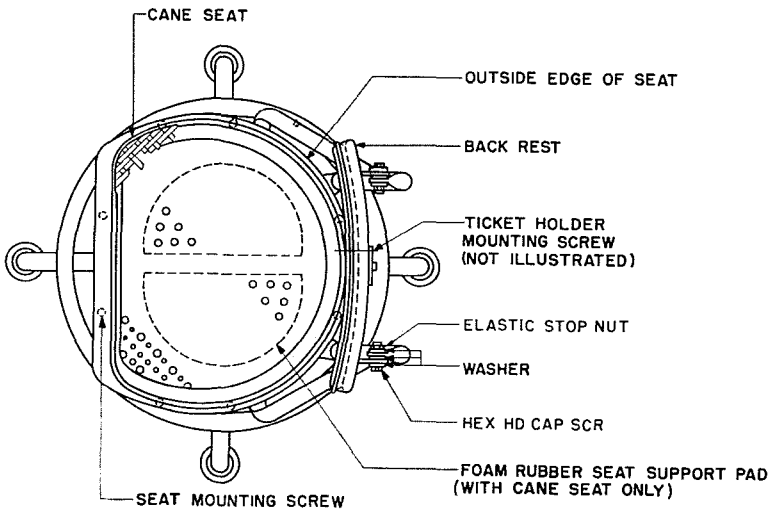


Fig. 11 — Top View of 1- Through 5-type Operator Chairs

remove the seat and seat plate. Discard the seat plate. Fasten the KS-15784, L27 seat in place by the four seat-mounting screws furnished with the new seat by tightening them securely. Clean the seat with a clean KS-14666 cloth.

(c) ***To replace a KS-15531, L18 cane seat by a KS-15531, L19 air cell seat,*** turn the chair upside down, remove the seat-mounting screws with the 4-inch regular screwdriver, and remove the seat. Place the chair upright on the floor. Cement the rubber gasket furnished with the set of materials to the seat plate by applying the rubber-to-metal cement in the groove of the rubber gasket and to the edges of the seat plate. Assemble the rubber gasket with the stapled joint of the rubber gasket at the rear center of the seat. After the cement is thoroughly dry, place the front of the seat inside and against the front of the rubber gasket. Then place the tip of the screwdriver blade between the seat and the gasket, draw the screwdriver around the gasket lip, at the same time prying the lip back and pushing the seat down inside the gasket. Holding the seat in place, turn the chair upside down on a bench or table with the seat resting on the bench or table and with the back extending down over the edge. Insert the self-tapping seat mounting screws through the lockwashers and clips. Locate the clips over the edge of seat plate at the side cutouts in the plate, and turn the screws down into a perforation of the seat pan with the 3-inch cabinet screwdriver. If the perforation is enlarged so that the screw will not tighten properly, assemble the screw in an adjacent hole. Clean the seat with a clean KS-14666 cloth.

(d) ***To replace a KS-15531, L18 cane seat by a KS-15784, L28 upholstered seat,*** on all KS-15531-type operator chairs, except the offset chairs with ball bearings, turn the chair upside down, remove the seat-mounting screws with a 4-inch regular screwdriver, and remove the seat and seat plate. Discard the seat plate. Fasten the KS-15784, L28 seat in place by the four seat-mounting screws furnished with the new seat by tightening them securely. Clean the seat with a clean KS-14666 cloth.

3.05 To replace a KS-15531, L19 air cell seat, proceed as follows:

(a) ***To replace a KS-15531, L19 air cell seat by a new KS-15531, L19 air cell seat,*** turn the chair upside down and loosen the screws holding the clips and lockwashers at the bottom of the seat with the 3-inch cabinet screwdriver. Turn the clips toward the center of the seat, and remove the old air cell seat by springing the lip of the rubber gasket outward and lifting the seat out. Place the new air cell seat in position in the rubber gasket by prying back the lip of the gasket. Fasten the seat to the seat plate by turning the clips to their original position and tightening the self-tapping seat-mounting screws.

(b) ***To replace a KS-15531, L19 air cell seat by a KS-15531, L18 cane seat,*** turn the chair upside down and loosen the screws holding the clips and lockwashers at the bottom of the seat with the 3-inch cabinet screwdriver. Turn the clips toward the center of the seat, and remove the old air cell seat by springing the lip of the rubber gasket outward and lifting the seat out. Remove the rubber gasket and rubber cement from the seat plate with the putty knife. Align the new cane seat with the seat plate, allowing a space of at least 1/8 inch between the back rest posts (including post braces) and the outside edge of the seat. If necessary, the desired space may be obtained by sandpapering and refinishing the outside edge of the seat, when required. Securely fasten the seat in place by the eight seat-mounting screws. Clean the seat with a clean KS-14666 cloth.

3.06 ***To replace a KS-15784, L21 cane seat by a new KS-15784, L21 cane seat,*** on the KS-15784-type operator chairs proceed as follows. Turn the chair upside down, remove the seat-mounting screws with the 4-inch regular screwdriver, and remove the seat. Fasten the new seat in place by replacing the seat-mounting screws and tightening them securely. Clean the seat with a clean KS-14666 cloth.

3.07 ***To replace a KS-15784, L22 upholstered seat by a new KS-15784, L22 upholstered seat,*** on the KS-15784-type operator chairs, proceed as follows. Turn the chair upside down, remove the seat-mounting screws with a 4-inch regular screwdriver, and remove the seat. Fasten the new seat in place by replacing the seat-

mounting screws and tightening them securely. Clean the seat with a clean KS-14666 cloth.

Back Rests and Back Rest Pads

3.08 ***Back Rests:*** Using the 1/2-inch offset hexagon socket wrenches, one for holding the head of the swivel bolt and the other for loosening the stop nut, remove the hexagon head cap screws, elastic stopnuts, and washers which attach the back rests to the back rest posts. Replace the old back rest with the new back rest, replace the hexagon head cap screws, elastic stopnuts, and washers, and tighten the hexagon head cap screws to such a tension that the back rest will not drop of its own weight. The back rest should move only when a light external pressure is applied. Clean the back rest with a clean KS-14666 cloth.

Note: Upholstered back rests shall be mounted on the KS-15531-type chairs with the mounting brackets on the inside of the back rest supports.

3.09 ***Back Rest Pads:*** To replace a back rest pad, pull out the two U-hook fasteners in back of the back rest and slip the pad off the back rest. Assemble the new part in the reverse order of removal.

Chair Rests

3.10 ***Cotter-pin-type Chair Rests:*** To replace the cotter-pin-type chair rest by the rubber-grip-type chair rest having a metal slide base, it is necessary first to pull out the chair rest and then remove the chair rest socket which is held in the end of the chair leg by four crimps. To do this, drive the socket out of the chair leg by placing the cold chisel on the socket shoulder at each of the four crimps which hold the socket in place. Strike the chisel with a heavy blow of the ball-peen hammer using additional blows at each point, if necessary, until the socket is removed.

Caution A: The head of the cold chisel shall not be mushroomed.

Caution B: No hammer other than a ball-peen hammer shall be used for striking the cold chisel.

Caution C: Safety goggles shall be used when striking the head of the cold chisel with the ball-peen hammer to prevent the possibility of flying chips causing personal injury.

Assemble the new rubber-grip-type chair rest in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

3.11 ***Rubber-grip-type Chair Rests Having a Plastic Slide Base:*** To replace a rubber-grip-type chair rest having a plastic slide base by a rubber-grip-type chair rest having a metal slide base, loosen the flat-heat screw on the bottom of the chair rest a few turns with the 5-inch regular screwdriver, and pull the chair rest out of the leg. The new rubber-grip-type chair rest should then be assembled in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

3.12 ***Rubber-grip-type Chair Rests Having a Metal Slide Base:*** To replace a rubber-grip-type chair rest having a metal slide base by a new rubber-grip-type chair rest having a metal slide base, turn the metal base counterclockwise until it is loose, then pull the chair rest out of the leg. The new rubber-grip-type chair rest should then be assembled in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

Spindles

3.13 ***Stop-pin-type Outer Spindle and Ball Bearing of Offset Spindle Chairs:*** To replace an outer spindle and, if necessary, the ball bearing or nylon bearing of the upper section of the offset spindle chairs, unscrew the upper section of the chair from the lower section. Then

unscrew the hexagon nut at the bottom of the inner spindle with the 19/32-inch open-end wrench, remove the washer, and slide the outer spindle off the inner spindle. Then lift the ball bearing from the top of the outer spindle. Place the old ball bearing or, if necessary, a new ball bearing or nylon bearing on the new outer spindle and reassemble the parts in the reverse order of removal. Tighten the hexagon nut securely.

3.14 *Purse Holders:* To replace a purse holder, turn the chair upside down, remove the purse holder mounting screws from the lockwasher and nuts with the 3-inch cabinet screwdriver, and remove the purse holder. Align the new purse holder over the purse holder mounting screw holes and replace the mounting screws, lockwashers, and nuts.

Note: Offset chairs with ball bearings per KS-15531 and the 5-type chairs are not drilled for purse holders. If purse holders are to be provided, these chairs shall be drilled as shown in Fig. 18. ←

3.15 *Spindle Covers:* To replace a spindle cover, turn the chair upside down, remove the spindle-cover mounting screw from the lockwashers and nuts with the 3-inch cabinet screwdriver, and remove the spindle cover. Align the new spindle cover and replace the mounting screws, lockwashers, and nuts.

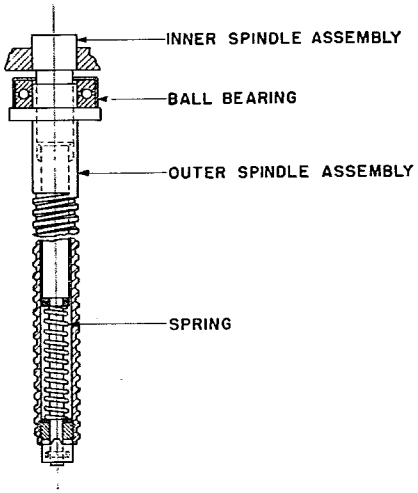


Fig. 12A—Prong- and Slot-type Spindle

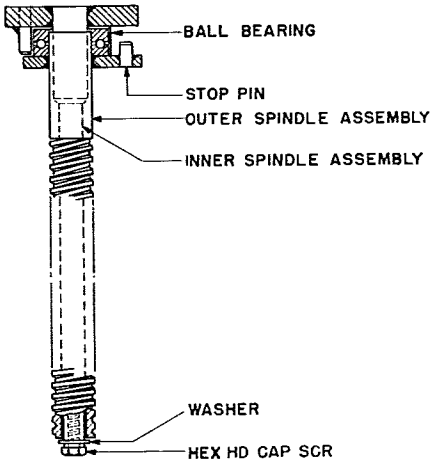


Fig. 12B—Stop-pin-type Spindle—Ball Bearing

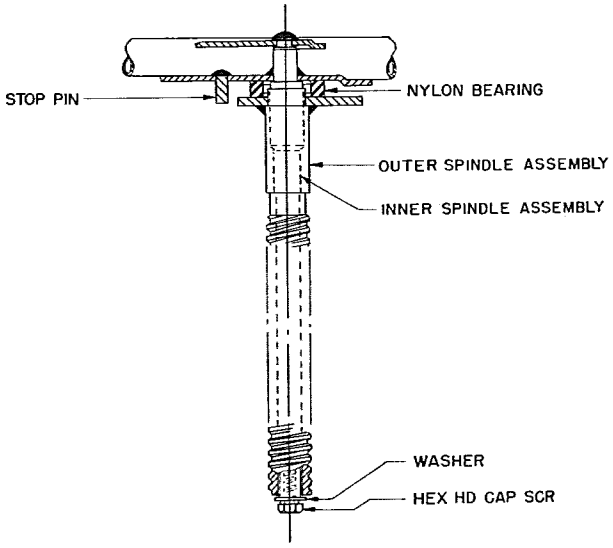


Fig. 12C—Stop-pin-type Spindle—Nylon Bearing

Fig. 12—Spindles

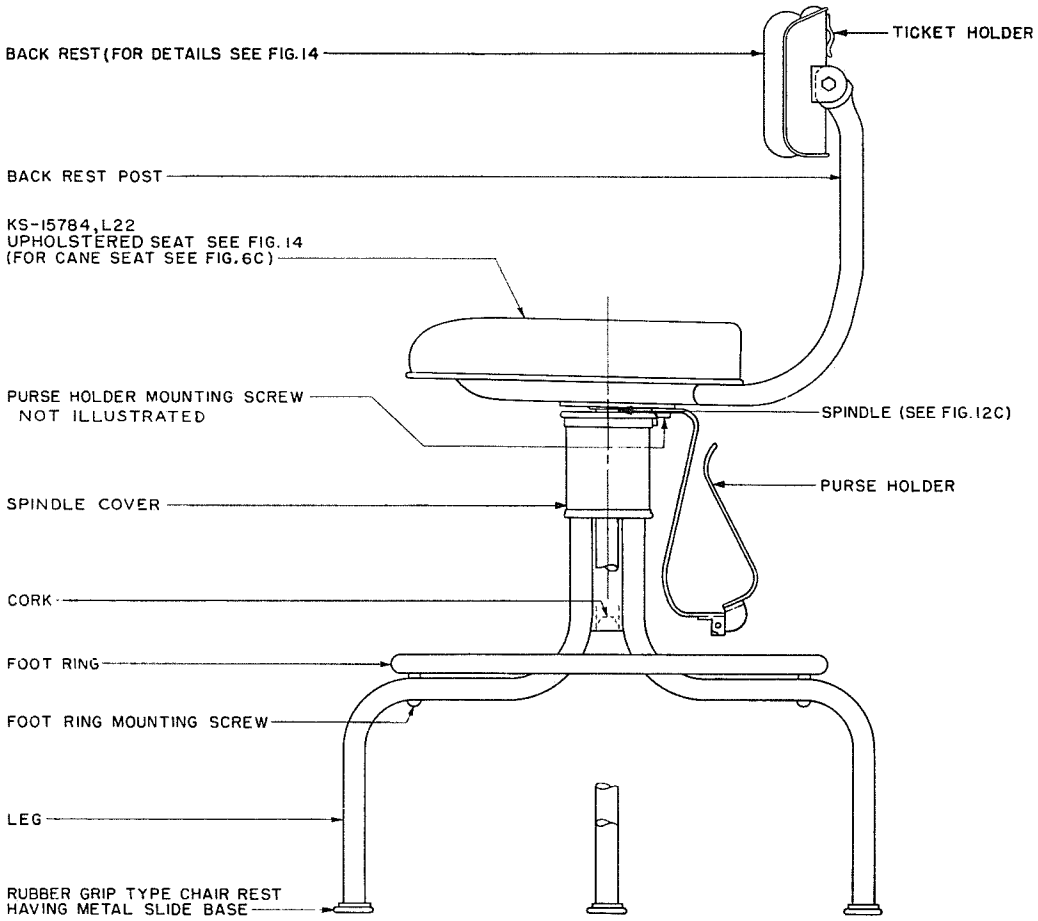


Fig. 13 – KS-15784-type Operator Chairs (KS-15784, L7 Through L12 Operator Chairs — Illustrated)

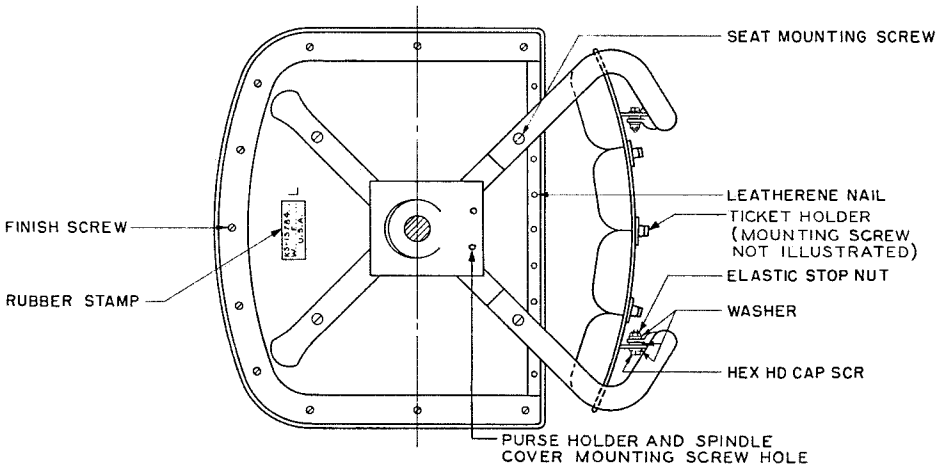


Fig. 14 – Bottom View of Upper Unit — KS-15784-type Operator Chairs

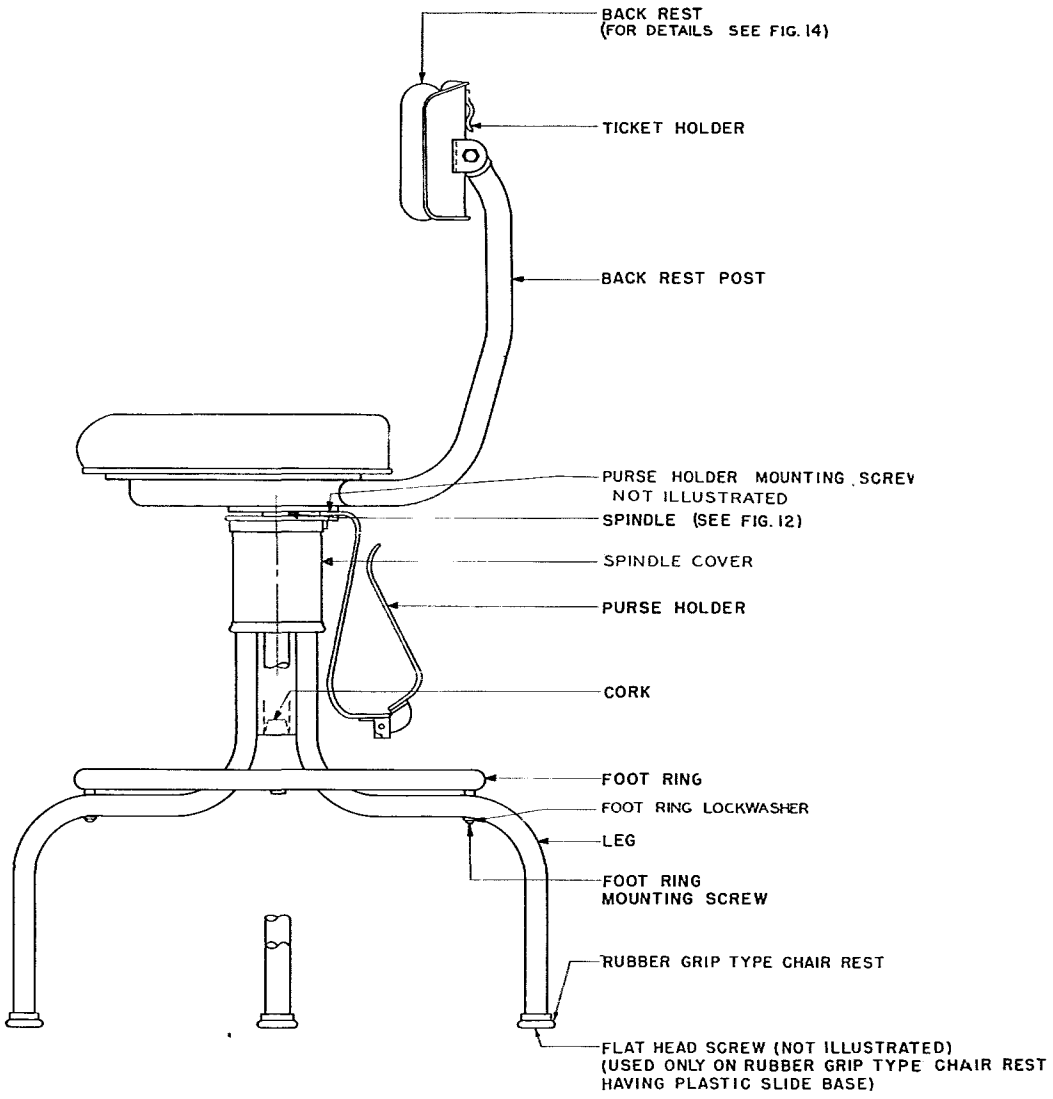


Fig. 15 — KS-15531-type Operator Chairs (KS-15531, L3 Through L8 Operator Chairs — Illustrated)

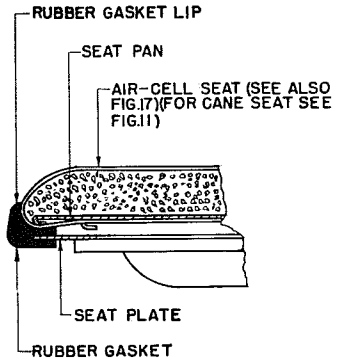


Fig. 16 – Cross Section of Air Cell Seat

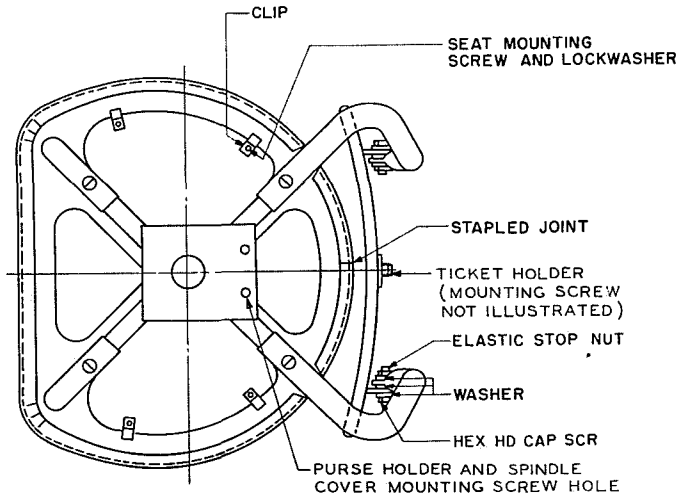
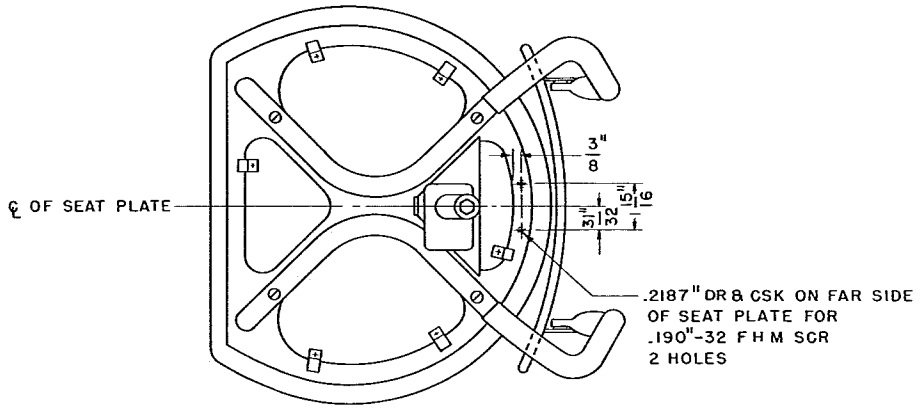


Fig. 17 – Bottom View of Upper Unit — KS-15531-type Operator Chairs



PURSE HOLDER NOT SHOWN
SECT. A-A

NOTES:

A. CHAIRS EQUIPPED WITH AIRCELL SEATS SHALL USE TWO WASHERS, PLAIN BRASS NO.12 .228"X.500"X.040" (P-284194 OR EQUIVALENT) BETWEEN THE SEAT PLATE AND PURSE HOLDER AS SPACERS TO OFFSET THE RUBBER GASKET CEMENTED AROUND THE EDGE OF THE SEAT PLATE.

B. THE TWO RH M SCR PROVIDED WITH THE PURSE HOLDER SHALL BE DISCARDED AND TWO .190"-32 X 1/2" FHM SCR SHALL BE FURNISHED LOCALLY FOR MOUNTING THE PURSE HOLDER TO THE CHAIR.

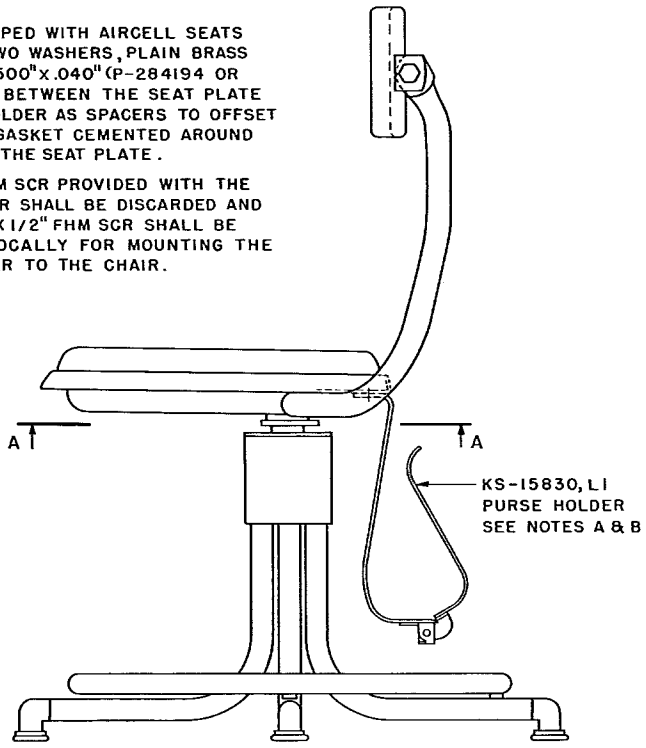
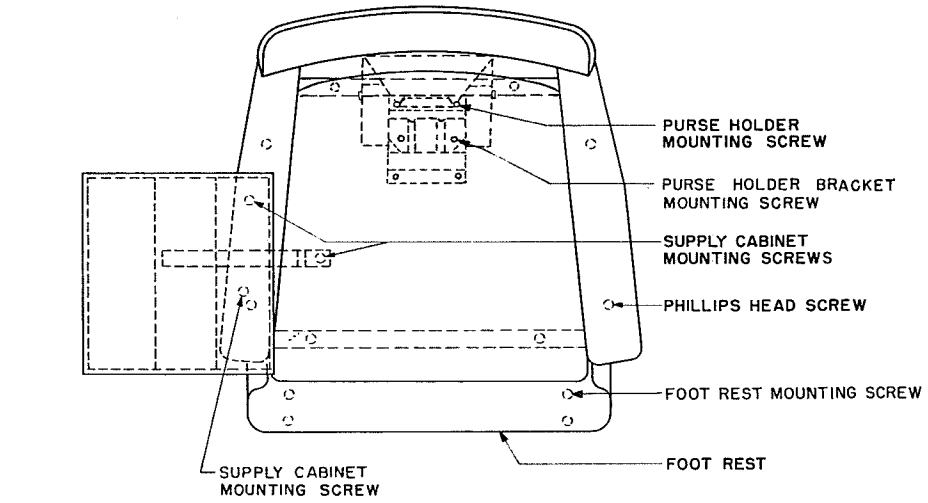


Fig. 18 — Method of Mounting KS-15830, L1 Purse Holder to KS-15531 or No. 5AR Offset Operator Chairs — (KS-15531, L9 Chair Illustrated)



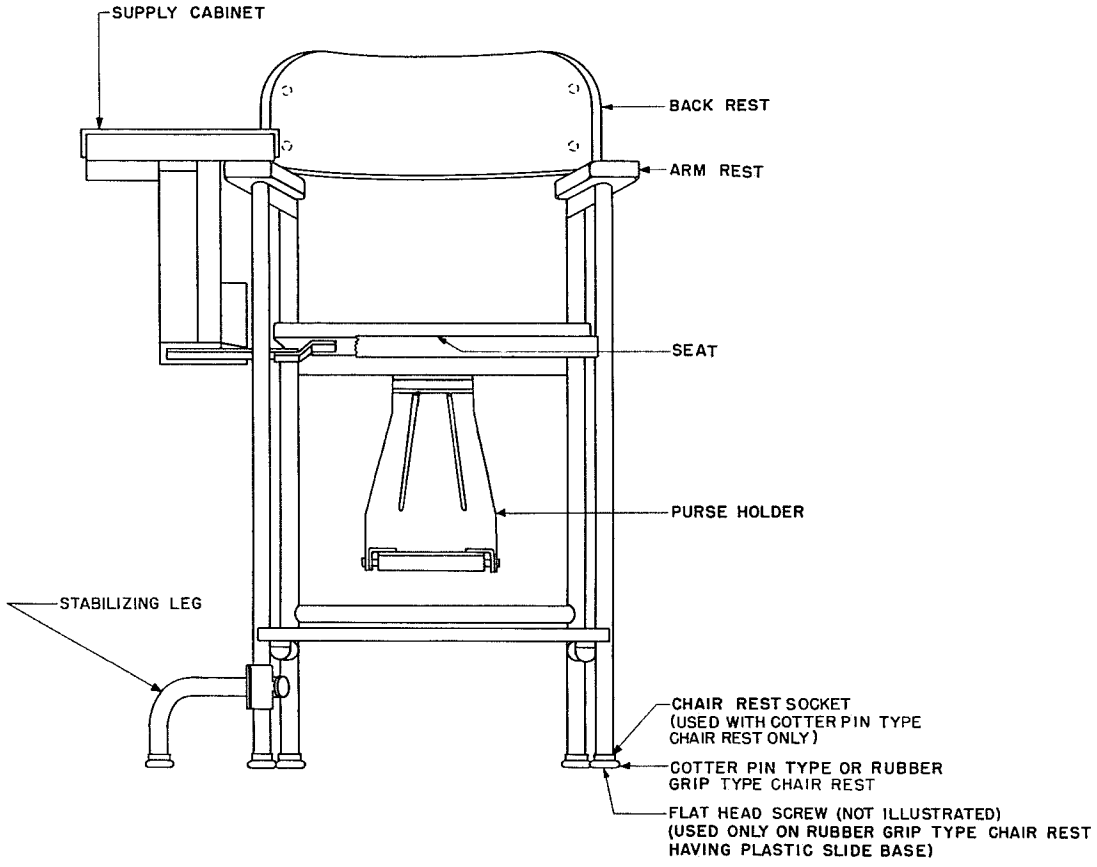


Fig. 19 – KS-5587-type, 25-inch Supervisor Chairs (Illustrated), and 33-inch Supervisor Chairs

C. Supervisor Chairs

Chair Rests

3.16 *Cotter-pin-type Chair Rests:* To replace a cotter-pin-type chair rest by a rubber-grip-type chair rest having a metal slide base, pull out the chair rest and then remove the chair-rest socket which is held in the end of the chair leg by four crimps. To do this, the socket should be driven out of the chair leg by placing the cold chisel on the socket shoulder at each of the four crimps which hold the socket in place. Strike the chisel with a heavy blow of the ball-peen hammer, using additional blows at each point, if necessary, until the socket is removed.

Caution A: The head of the cold chisel shall not be mushroomed.

Caution B: No hammer other than a ball-peen hammer shall be used for striking the cold chisel.

Caution C: Safety goggles shall be used when striking the head of the cold chisel with the ball-peen hammer to prevent the possibility of flying chips causing personal injury.

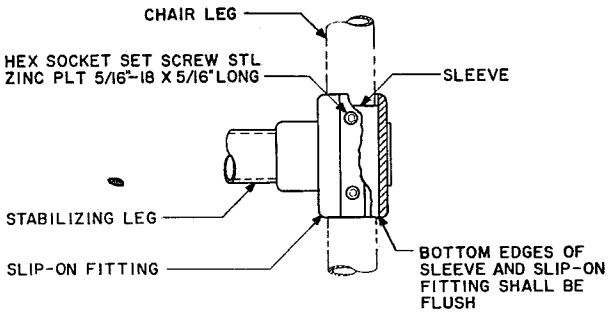
Assemble the new rubber-grip-type chair rest in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

3.17 *Rubber-grip-type Chair Rests Having a Plastic Slide Base:* To replace a rubber-grip-type chair rest having a plastic slide base by a rubber-grip-type chair rest having a metal slide base, loosen the flathead screw on the bottom of the chair rest a few turns with the 5-inch regular screwdriver and pull the chair rest out of the leg. The new rubber-grip-type chair rest should then be assembled in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the new chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

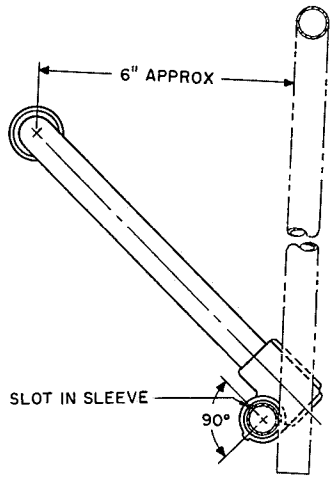
3.18 *Rubber-grip-type Chair Rests Having a Metal Slide Base:* To replace a rubber-grip-type chair rest having a metal slide base by a new rubber-grip-type chair rest having a metal slide base, turn the metal base counter-clockwise until it is loose, then pull the chair rest out of the leg. Assemble the new rubber-grip-type chair rest in the chair leg as follows. Run the nut of the new chair rest up against the metal washer, then insert the rubber part of the chair rest in the chair leg and turn the slide base clockwise until it is tight. The outer surface of the rubber part of the chair rest may be slightly moistened with liquid soap to facilitate assembly of the chair rest in the leg, if necessary.

3.19 *Stabilizing Leg Assembly:* To replace a stabilizing leg assembly, remove the chair rest from the front right chair leg, as described in the applicable chair rest replacement information, 3.16, 3.17, or 3.18. The two setscrews fastening the stabilizing leg assembly to the chair should then be loosened with the Allen socket screw wrench, and the stabilizing leg assembly removed from the leg. Assemble the new stabilizing leg assembly to the chair as follows. The four setscrews should be slightly loosened with the Allen socket screw wrench. With the slotted sleeve inside the slip-on fitting, slide the stabilizing leg assembly onto the leg. Replace the chair rest as described in the applicable chair rest replacement information, 3.16, 3.17, and 3.18. Position the slotted sleeve and stabilizing leg as shown in Fig. 20, and tighten the four setscrews securely with the Allen socket screw wrench.

3.20 *Purse Holders:* To replace a purse holder, turn the chair upside down, remove the purse holder mounting screws from the lockwashers and nuts with the 3-inch cabinet screwdriver and remove the purse holder. Align the new purse holder over the purse holder mounting-screw holes and replace the mounting

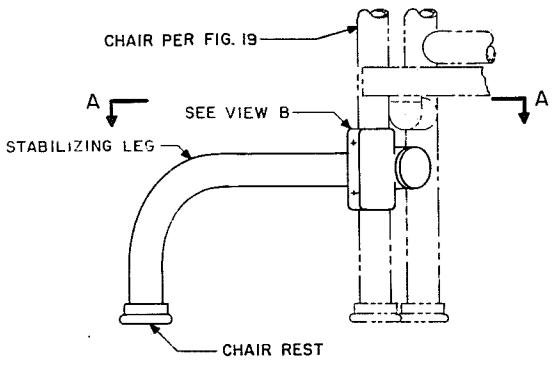


VIEW B



POSITION OF SLEEVE AND STABILIZING LEG

SECT. A-A



FRONT VIEW

Fig. 20—KS-5587 L5 (Mahogany)—KS-5587, L6 (Green) Stabilizing Leg Assembly for Supervisor Chairs

screws, lockwashers, and nuts.

Note: Drilling for mounting bracket of KS-15830, L4 purse holder shall be in accordance with Fig. 21.

4. MINOR REPAIRS

A. Operator Chairs

Nylok Self-locking Foot-ring Mounting Screws

4.01 ***Lower Units:*** Replace loose or missing foot-ring mounting screws by mounting screws of the Nylok self-locking type, as follows:

(a) Remove loose foot-ring mounting screws with the 4-inch regular screwdriver.

(b) When necessary, countersink the foot-ring mounting-screw holes on the underside of the leg sufficiently to clear away the plastic covering and to cut slightly into the metal tubing, if this has not already been done.

(c) Insert the Nylok self-locking mounting screw through the leg and into the foot ring. Tighten the Nylok self-locking screw sufficiently to fasten the foot ring to the leg securely. Lockwashers are not required with the Nylok self-locking mounting screws.

Cane Seats

4.02 Trim off upturned, rough, or frayed strands, which are separated by at least two unbroken strands, on seats which are in otherwise satisfactory condition. Preserve the cane by a coat of either the rubbing varnish or shellac.

Static Charges on Air Cell Seats

4.03 Static charges which may accumulate on air cell seats may be reduced by wiping the seat with a clean KS-14666 cloth, slightly moistened with Anstac-2M solution. Allow the seat to dry and then wipe with a dry, clean KS-14666 cloth before it is returned to service. Apply the solution as often as necessary.

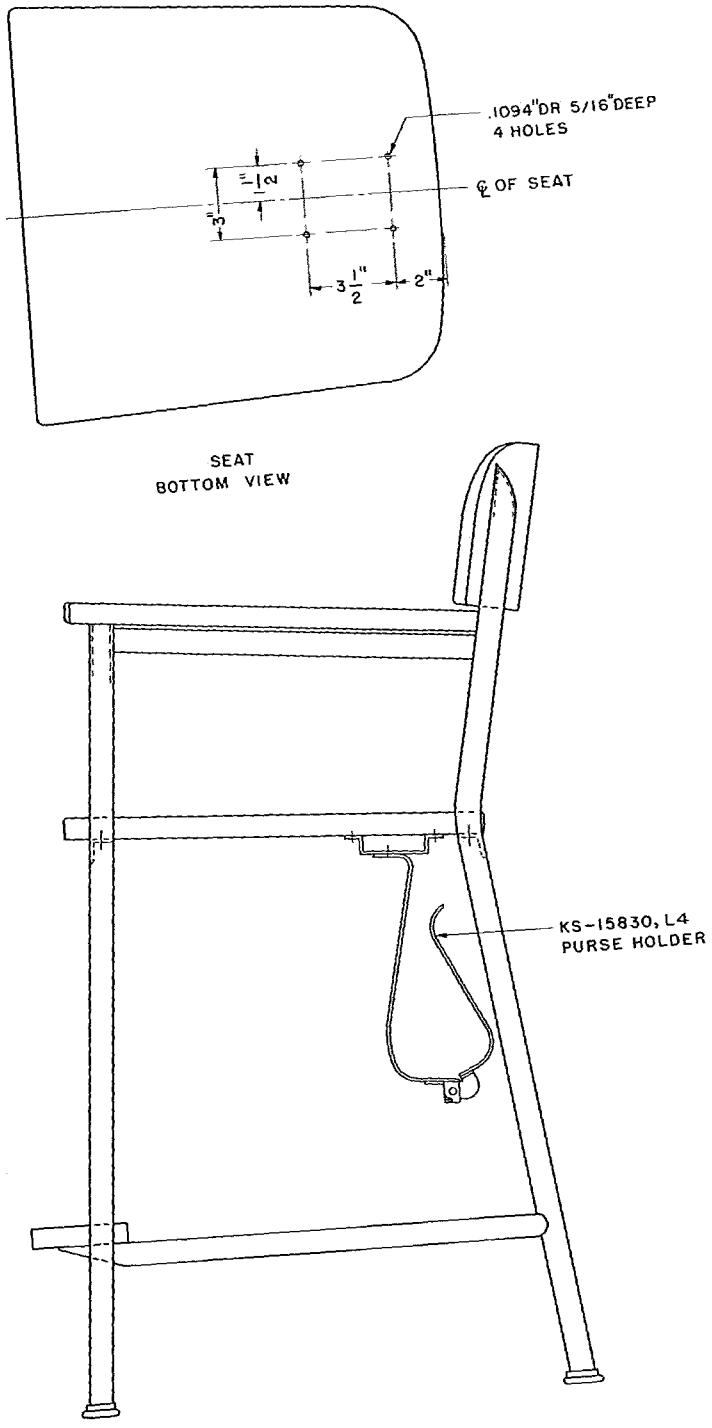


Fig. 21 – Method of Mounting KS-15830, L4 Purse Holder to KS-5587 Supervisor Chair

Metal Parts

4.04 Remove any sharp edges or burrs on the nuts, bolts, screws, and other metal parts with the H-type combination file.

Cleaning Chairs

4.05 Remove oil, grease, excessive furniture polish, etc, from all parts of the chair with a clean KS-14666 cloth slightly moistened with KS-7860 petroleum spirits.

Cleaning Seats and Back Rests

4.06 Clean the air cell seats, upholstered seats, and upholstered back rests with KS-14427 cleaning emulsion.

Caution: Cloth shall be moistened slightly with KS-14427 cleaning emulsion.

Cleaning Spindle and Hub of the 1- Through 4-type, KS-15531, Lists 1 Through 8, and KS-15784, Lists 1 Through 12 Operator Chairs

4.07 Separate the upper unit of the chair from the lower unit by rotating the upper unit in a counterclockwise direction, viewed from above the chair. Remove the cork at the bottom of the hub by driving it out with the 1/2-inch diameter dowel. Clean the old lubricant and dirt from the spindle and hub with a KS-14666 cloth moistened with KS-7860 petroleum spirits. Remove gummed lubricant and dirt from the spindle with the brush part of the Henry Disston and Sons No. 2 brush and file card, so moistened with KS-7860 petroleum spirits that an excess of the fluid will not be deposited on the part being cleaned. Then wipe the part dry with a clean KS-14666 cloth. Remove gummed lubricant and dirt from the hub threads by rubbing with the Osborn Manufacturing Company No. 816 brush. Replace the cork and drive it securely into place until it is flush with the bottom of the hub.

Lubricating Spindle and Hub of the 1- Through 4-type, KS-15531, Lists 1 Through 8, and KS-15784, List 1 Through 12 Operator Chairs

4.08 Clean the parts as covered in 4.07, and lubricate the spindle with a thin film of KS-6438 oil by means of the KS-2993 flat brush. Reassemble the upper unit to the lower unit of the chair, and turn the seat unit all the way down, and then up again until the top of the spindle thread is exposed. Remove any lubricant which may be on parts other than the threads with a clean KS-14666 cloth.

Cleaning Spindle and Hub of the No. 5A and 5AR Operator Chairs Equipped With Prong- and Slot-type Spindle

4.09 Separate the upper unit of the chair from the lower unit by rotating the upper unit in a counterclockwise direction, viewed from above the chair. With a KS-14670 commutator cloth, wipe the outer spindle and exposed surfaces of the prong and slot portion at the bottom of the spindle clean and free from lubrication, except that which is transferred from the cloth by the wiping operation. Clean the hub as covered in 4.07. Reassemble the upper and lower units.

Lubricating Spindle and Hub of No. 5A and 5AR Chairs Equipped with Prong- and Slot-type Spindle

4.10 Lubricate the inner spindle with KS-6438 oil. The oil may be applied at a point just above the ball bearing. Lubricate the outer spindle and hub with KS-6438 oil in accordance with information covered in 4.08.

Cleaning Spindle and Hub of No. 5AR, KS-15531, Lists 9 and 10, and KS-15784, Lists 5 and 6 Chairs Equipped With Stop-pin-type Spindle

4.11 Separate the upper unit of the chair from the lower unit by rotating the upper unit in a counterclockwise direction, viewed from above the chair. With a KS-14670 commutator cloth, wipe the outer spindle and exposed surfaces of the hexagon nut and washer at the bottom of the spindle clean and free from lubricant, except that which is transferred from the cloth by the wiping operation. The inner spindle may be removed from the outer spindle by removing the hexagon nut and washer at the bottom. After its removal, clean the inner spindle in accordance with the information covered in 4.07 for cleaning the spindle, and clean the inner surface of the outer spindle in accordance with the information covered in 4.07 for cleaning the hub. Assemble the inner spindle to the outer spindle and secure by replacing the washer and hexagon nut at the bottom. Clean the hub as covered in 4.07.

Lubricating Spindle and Hub of No. 5AR, KS-15531, Lists 9 and 10, and KS-15784, Lists 5 and 6 Chairs Equipped With Stop-pin-type Spindle

4.12 Lubricate the inner spindle with KS-6438 oil. The oil may be applied at a point just above the ball bearing. Lubricate the outer spindle and hub with KS-6438 oil, in accordance with information covered in 4.08.

Woodwork Finishes

4.13 To retouch the finish of the cane seat frames, wooden back rests, or other wood parts worn through to the wood, either through ordinary wear or by sanding operations, proceed as follows:

(a) Smooth rough and splintered parts with grit No. 2/0-100 Garnet finishing paper.

(b) Apply one coat of filler stain to match the finish of the spots to be retouched with the Devoe and Raynolds No. 244 sign painter's brush. Apply two applications if necessary, to produce the desired depth of color.

Note: In applying the filler stain, rebrush until the desired graining effect and depth of color are obtained. The filler stains used for finishing chairs have been developed with a view to preventing diffusion. It is necessary, therefore, to adhere strictly to the filler stains specified. A toner or stain which is subject to diffusion should not be used.

(c) Allow stain to dry 16 hours. Sandpaper with grit No. 2/0-100 Garnet finishing paper to remove fibers which may have been raised by the staining operation.

(d) Apply one coat of rubbing varnish or shellac.

Note: Use shellac when it is necessary to hold the drying time to a minimum.

(e) Allow varnish or shellac coat to dry thoroughly, then sand lightly with grit No. 6/0-220 Garnet finishing paper, and apply a finishing coat of rubbing varnish.

(f) When dry, sand lightly with grit No. 6/0-220 Garnet finishing paper and rub dull with No. 00 powdered pumice mixed with KS-6232 oil. Use burlap, felt, or similar material for the rubbing operation. Remove all excess rubbing materials.

Metalwork Finish

4.14 To retouch the finish of worn metal parts, remove all rust with grit No. 2/0-100 Garnet finishing paper and wipe clean with a KS-14666 cloth, slightly moistened with KS-7860 petroleum spirits. Apply one coat of air-drying enamel to match the color of the part with the Devoe and Raynolds No. 244 sign painter's brush, and allow to dry thoroughly.

Removal of Scratches and Paint Spots on Plastic-covered Parts

4.15 Do not retouch or refinish plastic-covered parts. Parts may be cleaned with a KS-14666 cloth, slightly moistened with KS-14427 cleaning emulsion. Scratches and paint spots on the plastic parts may be removed by rubbing with a silicon filler polish or by sanding with No. 150 aluminum oxide cloth, or an approved equivalent, and then buffing.

B. Supervisor Chairs

4.16 *Metal Parts:* Remove any sharp edges or burrs on the nuts, screws, and other metal parts with the H-type combination file.

4.17 *Cleaning Chairs:* Remove oil, grease, excessive furniture polish, etc, from all parts of the chair with a clean KS-14666 cloth, slightly moistened with KS-7860 petroleum spirits.

4.18 *Woodwork Finishes:* To retouch the finish of the seat, back rests, or other wood parts worn through to the wood, either through ordinary wear or by sanding operations, proceed as follows:

(a) Smooth rough and splintered parts with grit No. 2/0-100 Garnet finishing paper.

(b) Apply one coat of filler stain to match the finish of the parts to be retouched with the Devoe and Raynolds No. 244 sign

painter's brush. Apply two applications, if necessary, to produce the desired depth of color.

Note: In applying the filler stain, rebrush until the desired graining effect and depth of color are obtained. The filler stains used for finishing chairs have been developed with a view to preventing diffusion. It is necessary, therefore, to adhere strictly to the filler stains specified. A toner or stain which is subject to diffusion should not be used.

(c) Allow stain to dry 16 hours. Sandpaper with grit No. 2/0-100 Garnet finishing paper to remove fibers which may have been raised by the staining operation.

(d) Apply one coat of rubbing varnish or shellac.

Note: Use shellac when it is necessary to hold the drying time to a minimum.

(e) Allow the varnish or shellac coat to dry thoroughly, then sand lightly with grit No. 6/0-220 Garnet finishing paper, and apply a finishing coat of rubbing varnish.

(f) When dry, sand lightly with grit No. 6/0-220 Garnet finishing paper and rub dull with No. 00 powdered pumice mixed with KS-6232 oil. Use burlap, felt, or similar material for the rubbing operation. Remove all excess rubbing materials.

4.19 ***Metalwork Finish:*** To remove the finish of worn metal parts, remove all rust with grit No. 2/0-100 Garnet finishing paper and wipe clean with a KS-14666 cloth, slightly moistened with KS-7860 petroleum spirits. Apply one coat of air-drying enamel to match the color of the part with a Devoe and Raynolds No. 244 sign painter's brush, and allow to dry thoroughly.