MICROWAVE ANTENNAS
KS-16320 PASSIVE REFLECTORS
INSTALLATION
LIST OF TOOLS AND EQUIPMENT

1. GENERAL

1.01 This section lists the tools and miscellaneous equipment which are needed to perform the work of assembly, installation, and adjustment of KS-16320 passive reflectors.

1.02 In addition to the tools listed below, the KS-16320, List 7 elevation adjustment screw assembly, and KS-16320, List 8 azimuth adjustment screw assembly are required to perform the work of reflector adjustment. These tools are fully discussed in 402-423-209 and 402-423-210, respectively.

2. TOOLS AND EQUIPMENT

2.01 The following tools and equipment are needed for the assembly job:

Quantity	Item
1	Torque Wrench, 0- to 50-pound-feet capacity with 5/8-inch Wrench opening
2	5/8-inch Wrenches
2	13/16-inch Wrenches
2	1-inch Wrenches
1*	1-1/8-inch Open-end Wrench
2	1-1/2-inch Wrenches
1*	8-inch Adjustable Open-end Wrench
1	10-inch Adjustable Open-end Wrench (optional)
1	12-inch Adjustable Open-end Wrench
1	Screwdriver, 5-inch Blade (approx) tip 5/16-inch wide by .045-inch thick
1	Drift pin to fit 5/8-inch hole (See Note 3)
1	Chain Hoist, 3/4-ton Lever-operated Type, similar to Chisholm-Moore No. 4053 Improved Model B, C-M Puller described in AT-7420X (See Note 5)

* Tools required for assembly of list 2 reflector, but not required for assembly of list 1 reflector.

Notes

1. The following table may be of assistance in estimating requirements for additional tools.

Wrench Size Inches	No. Bolts/Reflector List 1	List 2
5/8	43	159
13/16	12	16
1	19	19
1-1/2	7	7

2. Unless wrenches are specially noted to be of the "open-end" type, box wrenches or socket wrenches may also be used. ***Detachable sockets, as used with ratchet handles, etc, must be of the same drive size as the wrench handle with which they are to be used.***

3. Drift pin may be omitted if a suitable wrench of the "structural type," i.e., with round handle tapered to a point, will be available during the assembly operation.

4. Commercial tools may be obtained from local distributors or from one or more of the following:
   J. H. Williams & Co.
   400 Vulcan Street
   Buffalo 7, N.Y.

   Snap-on Tools Corporation
   8028 28th Avenue
   Kenosha, Wis.

   Stanley Tools
   Division of the Stanley Works
   New Britain, Conn.

   Chisholm-Moore Hoist Division
   Columbia McKinnon Chain Corporation
   Tonawanda, N.Y.

5. The chain hoist is intended for use in controlling movement of the reflector on the supporting structure,
   (a) when the installation is made in two steps and means are required, in addition to the hoisting tackle, to draw the reflector into position for completion of the top connection, or

(b) during elevation adjustment when it is necessary to change the bolting position of the reflector with respect to the top mount.

Use of the chain hoist may not be required for installation if the reflector is assembled to the pipe support before being hoisted into place, or if the reflector can be rigged for hoisting in a manner to avoid the necessity for auxiliary handling tackle.

2.02 The following miscellaneous equipment is needed:

Quantity	Item
—	Tools for opening wooden crates and removing metal straps.
3	Sawhorses, or equivalent, approximately 30 inches high by 4 feet long.
1	Deck made of lumber or other surfacing material, free of sharp projections and high enough to clear ground obstacles not less than 6 by 8 feet for list 1 reflector nor less than 8 by 12 feet for list 2 reflector.
1	Construction Truck with complete erection equipment including winch, winch line, rope, slings, and tackle.
20 feet	1/4-inch Manila Rope.