

KNECHTIONREPAIR

INSTRUCTIONS:

KnechtionRepair two ferrule type industrial swaged compression fitting tools, AN/MS Aviation/AERO, and JIC Hydraulic tools are all designed to chase damaged internal and external threads without removal of the nut from the tubing/hose. Our AN/MS & JIC tools not only chase damaged internal and external threads of Aviation AN/MS & JIC type 37° tube/hose fittings they also reface/lap 37° seat angles. Please visit www.knechtionrepair.com for additional information.

Please Note:

- The correct tools must be selected before any repairs are completed.
- Tools are manufactured for specific thread forms and fitting types.
- KnechtionRepair tool kits come with both tap and die.



TOOL IDENTIFICATION:

FITTING TYPE JIC-6
HYDRAULIC HEAVY
EQUIPMENT TYPE FITTING
37° SEAT ANGLE
18 THREADS PER INCH

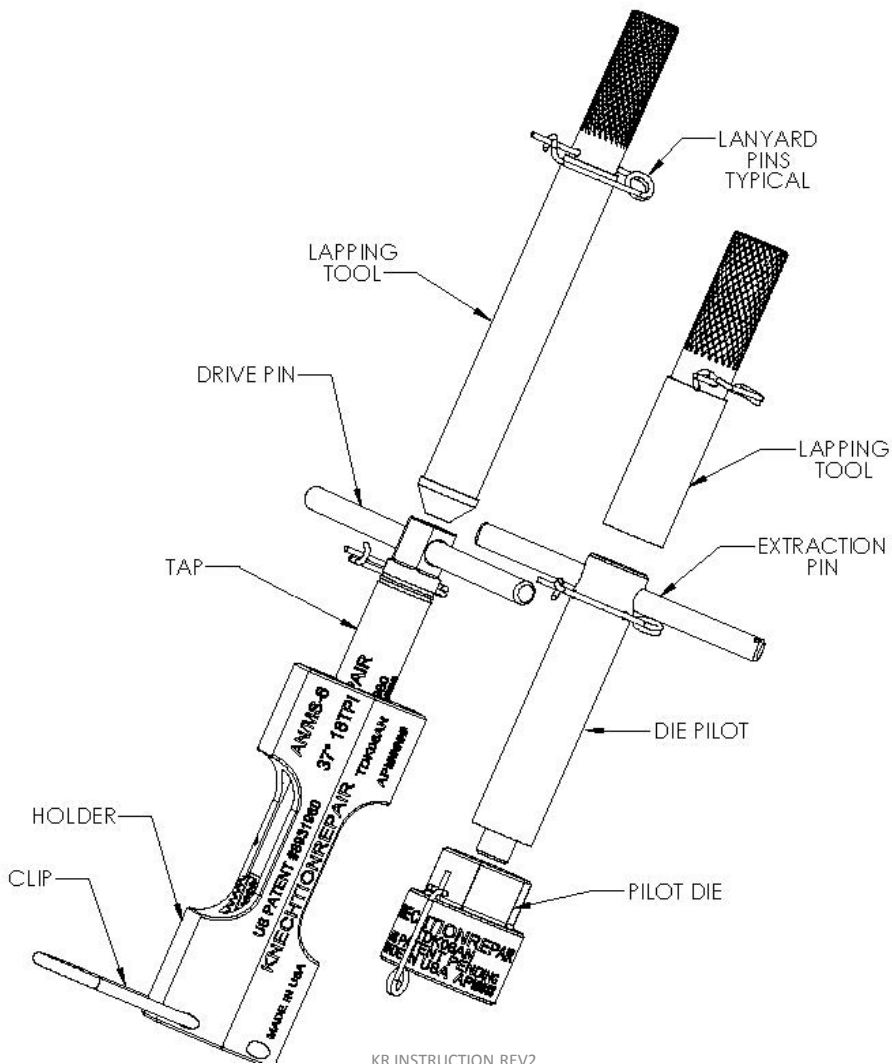


FITTING TYPE AN/MS-4
AVIATION/AERO TYPE
FITTING
37° SEAT ANGLE
20 THREADS PER INCH



FITTING TYPE 1/2"
 INDUSTRIAL SWAGED
 TWO FERRULE COMPRESSION TYPE
 TUBE / HOSE FITTING
 20 THREADS PER INCH

Note: KnechtionRepair industrial swaged two ferrule compression type tap and die kits repair all 5 major brands of swaged type tube/hose fittings.



To repair a cross-threaded or damaged female thread of a nut and sealing face of the fitting:

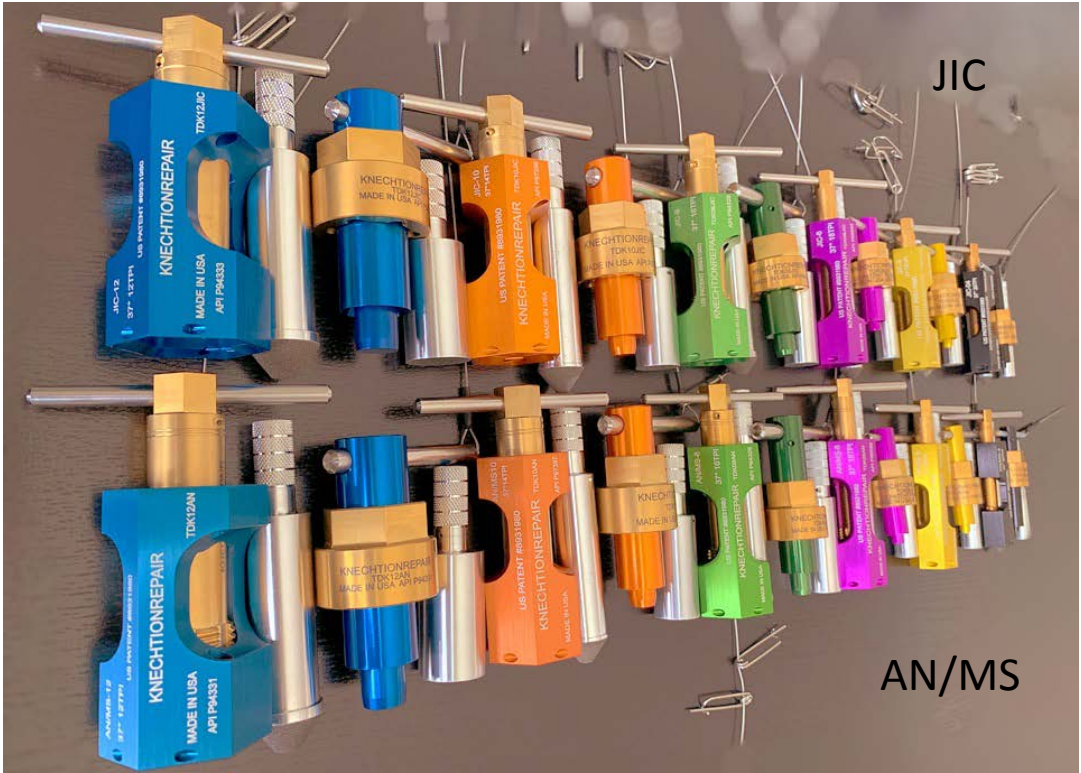
- Clean tube/hose and nut (internal and external) from foreign debris. Seating face must be in a serviceable condition. Install the tap into the holder – the hex end of tap goes in first. Insert nut and tubing/hose into the holder. If outside hex of nut is damaged and out of shape, it must be filed back to its original shape to fit into the holder. Once the nut and tube/hose is inserted into the holder, install the clip, this will hold the nut in the holder during the thread chasing process.
- **Note:** It is the responsibility of the user to determine the need for cutting fluids. Use appropriate thread tapping fluid for the type of alloy fitting and process as required.
- Move the tap into the nut. Turn the tap using the drive pin or applicable wrench to chase the internal threads. Complete the thread chasing. Reverse turn the tap completely out from nut.
- Remove the clip, nut and tube/hose from holder. Fluid and chips must be cleaned from the nut and tubing/hose.
- **AN/MS & JIC TDK's only** - If repair to the 37° seat angle is required. Remove the tap from holder, install the lapping tool into the holder with abrasive end to face the ID hex end of the holder. Install the previously repaired tube/hose nut in the holder. Install the clip to hold the nut in position within the holder. Pull the nut tube/hose assembly against the clip. This aligns the nut and fitting seating surface concentrically with the lapping tool in the holder. Manually turn the lapping tool using a typical lapping motion
- **The abrasive surface of the lapping tool must be kept clean using an approved cleaning fluid during the resurfacing – lapping process.** Remove the clip, nut tube/hose assembly. Clean nut tube/hose as required for final assembly.
- Store the holder, tap, drive pin, lapping tool and clip in the original container with the supplied lanyard and safety pins at completion of all repairs.

To repair a cross-threaded or damaged male thread of a fitting and sealing face of the fitting:

- Clean the fitting (internal and external) from foreign debris.
- **Note:** If the fitting is so damaged and out of shape that the die pilot will not insert into the fitting – the user must determine if the fitting is repairable .
- **Note:** It is the responsibility of the user to determine the need for cutting fluids. Use appropriate thread tapping fluid for the type of alloy fitting and process as required.
- Insert the die pilot over/into the fitting then install the pilot die over the die pilot. Hold the pilot firmly into the fitting to maintain true center of the fitting. Turn the die as if starting a nut by hand. Once started use the applicable wrenches and chase the fitting completely.
- Remove the die from the fitting and clean and inspect the threads and the 37° seat angle condition. The fluid and chips must be cleaned from the nut and tubing/hose.
- If the seat surface is determined serviceable, reinstall the pilot die completely onto the repaired fitting.
- **AN/MS & JIC TDK's only** – Insert the lapping tool into the center of the pilot die, this aligns the lapping tool concentric with the fitting threads.
- **The abrasive surface of the lapping tool must be kept clean using an approved cleaning fluid during the resurfacing – lapping process.**
- Manually turn the lapping tool using a typical lapping motion.
- Remove the lapping tool and pilot die from the repaired fitting. Clean threads and seating face as required for final assembly.
- Store the pilot die, die pilot, extraction pin and lapping tool in the original container with supplied lanyard and safety pins at completion of all repairs.



2 FERRULE



JIC

AN/MS

*****PLEASE READ*****

Warning! Repairing a fitting may void the original warranty of the fitting manufacturer. The KnechtionRepair tool removes material from fittings. The user is solely responsible for the integrity of any fitting repaired with the KnechtionRepair tool, and for determining whether the repaired fitting is fit for its intended use. In no event shall KnechtionRepair be liable for any direct, indirect, punitive, incidental, special, or consequential damages to property or life, whatsoever arising out of or connected with the use of fittings repaired with KnechtionRepair tools.