TRW INDUSTRIES, LLC

StudPuller

SRT MANUFACTURING

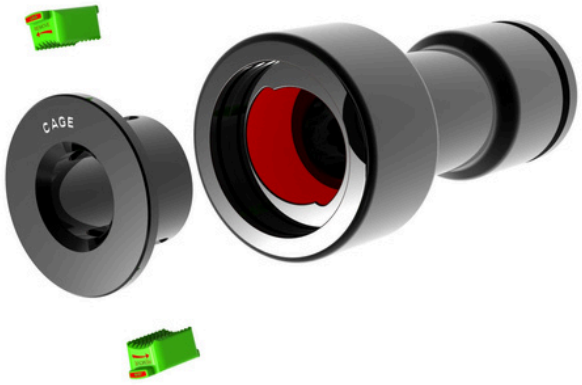
PATENTED

OPERATING INSTRUCTIONS AND MAINTENANCE MANUAL

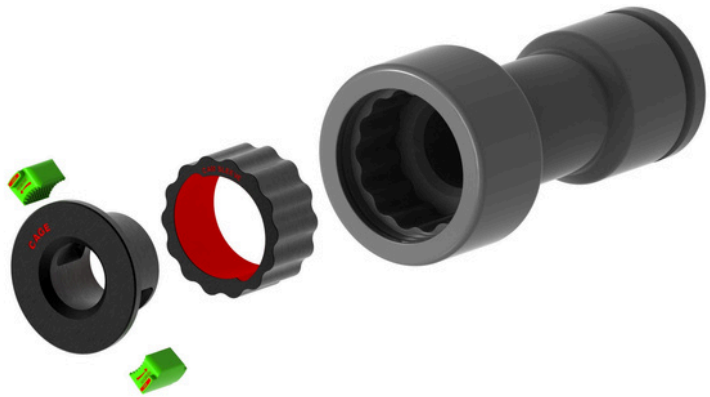
CONGRATULATIONS on aquiring the **StudPuller!**

The **ONLY** stud removal and installation tool based on science..

Read this entire Operating Manual prior to operating the tool.



HEAVY DUTY TOOL



LIGHT WEIGHT TOOL

StudPuller Components

CAGE

STEEL BODY

ALUMINUM BODY

CAM SLEEVE

REMOVE

JAW ORIENTATION

INSTALL

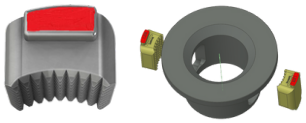
RETAINING RING

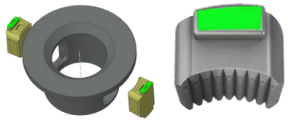
Operating the StudPuller

Orientation of Jaws - Removal or Installation

- The StudPuller tool will come fully assembled and ready to use in either the removal or the installation orientation.
- Determine the orientation for the Jaws in the Cage.

Remove





Install

- A visual examination of the jaws should show them in the most open position fully pressed against the surface of the internal cam.
- Ensure the jaws in the tool body are ready by rotating the jaws to the most open position by using your finger tips.
- Place the tool over the stud with the jaws positioned on the shoulder (or threads) of the stud.
- The grip should be on the lowest portion of the stud to ensure the easiest removal. Leave some space (2") so the stud can be seen rotating.
- Engage the pneumatic impact wrench throttle for 0.50 second. This will cause the jaws to engage the stud and lock into place.
- Engage the impact wrench full throttle until the stud begins to rotate counter clock-wise out of the housing.
- **DO NOT EXCEED MORE THAN 20 SECONDS OF IMPACT OPERATION AT ONE TIME IF THE STUD DOES NOT ROTATE.**
- If the stud does not begin to rotate after 20 seconds of impact force, it will have to be removed using another removal method.
- Before the stud is fully extracted, stop the impact wrench and reverse the direction for a ½ second so the jaws will release the stud.

FOR BEST RESULTS, REPEAT THIS PROCESS AFTER BREAKING THE STUD LOOSE SO THE STUD CAN BE EASILY REMOVED FROM THE TOOL.

Operating the StudPuller

Replacement of the Cage & Jaws

- Depending on operator use, the Cage and Jaws can last indefinitely up to 400 studs.
- Customers typically experience jaw life ranging from 200 to 400 extracted studs.
- The need for replacing jaws will need to be monitored by the operator.
- Usually the Cage will not need to be replaced unless there is excessive wear and tear.
- To replace the Cage or Jaws, remove the Retaining Ring.
- Extract the Cage & Jaws from the tool body, paying attention to the orientation.
- Replace the worn or damaged Cage or Jaws as needed.
- Clean and Lube the internal cam with Molly lube. Insert the new Cage and/or Jaws using the correct orientation.
- Replace the Retaining Ring back into its residing groove.
- Using your fingers, rotate the cage and jaw assembly, ensuring that they move easily along the internal cam.

Maintenance of the StudPuller

- Lubrication of the internal cams or cam sleeve in the tool is critical.
- Any industrial grade nickel based anti-seize lubricant will provide sufficient lubrication.
  We recommend DOW CORNING -MOLYKOTEG-N PLUS PASTE.
- Always ensure that the sleeve surface is free from dirt or debris when installing new Jaws.
- Metal shavings can work their way between the cam surfaces and rear surfaces of the Jaws during operation and cause significant damage to the StudPuller if not removed prior to commencing operations.
- If any doubt exists on how to operate the StudPuller, **DO NOT OPERATE! IMPROPER USE WILL VOID THE WARRANTY!**

StudPuller
Warnings & Safety

Warnings

- **Put Safety first!** Failure to observe the following warnings and instructions could result in equipment damage, serious injury or possibly even death.
- **Always wear appropriate protective clothing while operating the tool.**
- Pneumatic impact wrenches vibrate in use. Vibration and repetitive motion may be harmful to arms and hands. Stop using if any discomfort, tingling feeling or other pain occurs. **Seek medical advice if necessary.**
- Always run off air supply and disconnect supply hose from impact wrench prior to removing, installing or adjusting any components of this tool, or before performing any maintenance on the tool.
- **Keep hands, loose clothing and long hair away from the tool in rotational operation.**
- **Do not lubricate with flammable or volatile liquids such as kerosene or diesel.**
- This tool is not insulated against electric shock. **This tool is not designed for work in explosive atmospheres.**
- This tool can exert strong forces on the operator. **Anticipate sudden changes in motion during start-up operation of the tool.**
- The use of other than originally designed replacement parts may result in **safety hazards,** decreased tool performance, increased tool maintenance and may **void all warranties.**
- **TRW INDUSTRIES LLC** is not responsible for customer's modification to tools for applications on which **TRW** was not consulted.
- Repairs should only be made by authorized, trained personnel. Consult **TRW INDUSTRIES LLC** for assistance.
- **It is the responsibility of the operator's employer to place the information in this manual into the hands of the equipment operator.**
- **The only tool that should be used to rotate the StudPuller is a properly inserted impact wrench drive tool. Any other tools, such as a ratchet or pipe wrench, will void the warranty and could permanently damage the tool.**
- **DO NOT EXCEED MORE THAN 20 SECONDS OF IMPACT OPERATION AT ONE TIME WITH THIS TOOL. If the stud does not begin to rotate, it will have to be removed using another removal method.**

Safety

- **CONSIDER YOUR WORK ENVIRONMENT.** Stud extraction tools should never be used in any atmosphere which may be considered volatile. If any doubt exists, **DO NOT USE THIS TOOL!** Metal to metal contact can cause sparks, which could serve as an ignition source to explosive atmospheres.
- **AVOID PREMATURE TOOL START-UP.** Ensure that impact throttle is not engaged. Never lock or tie the throttle handle down in the open operating position.
- **STAY CLEAR DURING OPERATION.** The tool is designed to operate without physical assistance. Keep hands and body clear during operation.
- **STORE IDLE TOOLS.** When not in use, tools and accessories should be properly stored to avoid deterioration.
- **USE THE RIGHT TOOL.** Do not force a small tool to do the job of a larger tool. Use the right tool for the application. Do not use tool for purposes unintended.
- **PROPER ATTIRE.** When handling/operating stud extraction tools, wear work gloves, safety glasses with side shield, hard hat, safety shoes, hearing protection and all other applicable safety clothing.
- **MOVING EQUIPMENT.** Only use certified lifting devices to load, unload or move equipment.
- **MAINTAIN TOOLING.** Always inspect tool prior to operation. After operation, tool must be disassembled for re-lubrication and inspection.
- **STAY ALERT.** Be aware of your surroundings. Communicate with others. Use common sense. Do not operate equipment under the influence of drugs or alcohol.

PRIOR TO OPERATION:

- Verify that pneumatic/electric impact wrench has a valid inspection and/or maintenance record. Ensure that all air supply lines are secured with safety clips, whip checks and that there is no air leakage or hose line kinks.
- Verify that all internal components of tool are secured and in the correct orientation.
- Ensure all personnel in area are aware of extraction or installation.