



**BONNEY**

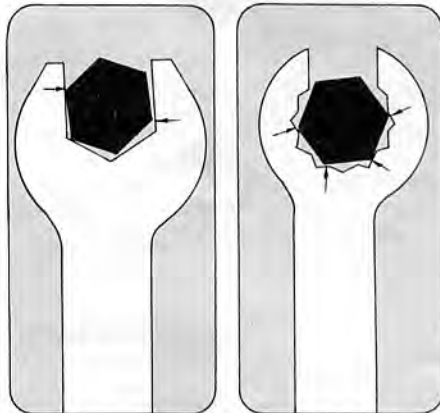
# Loc-Rite

HERE'S WHAT *Loc-Rite* WRENCHES DO THAT NO OTHER WRENCHES CAN DUPLICATE

- Prevent mutilation and distortion of fasteners
- Reduce hydraulic, pneumatic, and gas leaks caused by fastener distortion
- Remove damaged bolts and nuts—even if corners have been rounded by conventional wrenches
- Permit accurate torquing with correct torque-tension relationship.
- Provide up to 20% more clamping force
- Reduce warranty costs and downtime caused by malfunction of vital parts—reduce consumer costs and complaints
- Reduce service call-backs due to faulty wrenching
- Permit re-use of fasteners many times



### Conventional Wrenches Can Crush As They Tighten



**Conventional OPEN END WRENCH:** opposing pressure distorts, damages fasteners

**Conventional FLARE NUT WRENCH:** bears unevenly, squeezes fasteners

Conventional open-end wrench exerts squeezing force inward at two points on fastener. Uneven pressure can gall threads, cause leaks.

Conventional flare nut wrench bears on four points, not two. But it also turns with a crushing force that can damage through distortion.

Either wrench design can create false torque-tension relationships. The apparent "tightness" of distorted fasteners may result in leakage when the distorted fastener returns to "round" after wrenching.

The Revolutionary New Wrench Design That Turns Nuts And Bolts Without Distortion Or Mutilation And Reduces Leakage In Hydraulic And Pneumatic Fittings

*Loc-Rite* And Only *Loc-Rite* Uses A New Turning Principle  
tangential power torques gently, tightly, evenly



Loc-Rite wrenches and sockets exert pressure circularly, or tangentially, instead of pressing inward with crushing force. Because a Loc-Rite wrench bears on sturdy hex flats instead of weaker hex points, there is no damage to fasteners, no out-of-round condition developed even during high torque wrenching. There's no galling, no undue thread friction, no false torque readings—and no leakage from incorrectly tightened fittings! Ask for the patented Loc-Rite design by name.

Utica products are sold through authorized distributors

# Loc-Rite® and only Loc-Rite wrenches use this entirely new turning principle



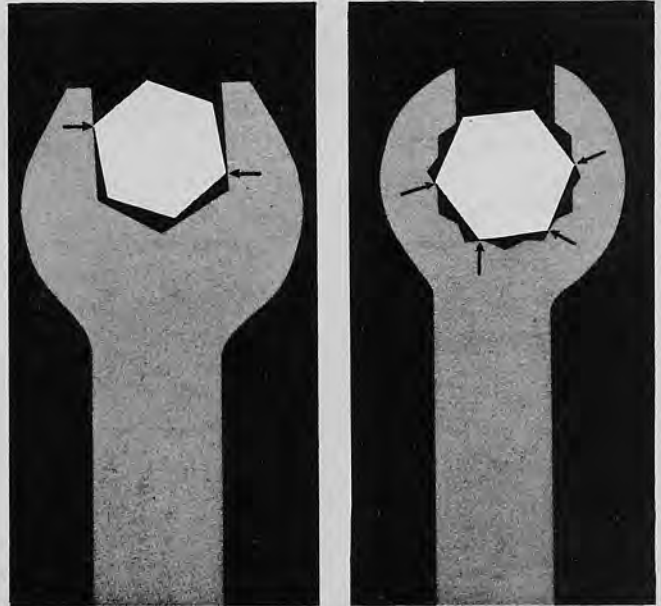
Utica Loc-Rite wrenches and sockets work on a revolutionary principle that prevents leaks, fastener damage, distortion, or false torque readings. Instead of tightening by pressing inward, Loc-Rite wrenches exert pressure tangentially, from the sturdy hex flats around the shoulder of the fitting.

Because a Loc-Rite wrench bears on hex flats instead of hex points, there is no damage to fasteners, no out-of-round condition developed even during high-torque wrenching of thin wall fasteners or soft metals. So there is no galling of threads, no undue thread friction, no false torque readings—and no leakage from incorrectly tightened fittings.!

Another advantage of Loc-Rite tangential force is that you can use a Loc-Rite wrench to loosen and possibly re-use a fitting so badly damaged that conventional wrenches will no longer turn it! Even if the hex points have been crushed, a Loc-Rite wrench will work, since it snugs deep into hex flats.

Utica Loc-Rite tools meet the most exacting assembly and repair needs in aerospace, hydraulics, automotive—wherever performance and dependability count. Once you try a Loc-Rite wrench or socket, you'll never want to use conventional tools again!

All conventional wrenches can crush fittings as they tighten them.



\*PATENT NO. 3125910

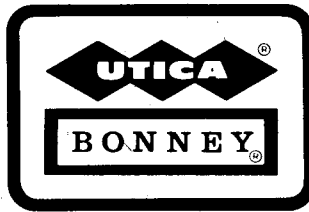
All conventional wrenches use these outmoded crushing principles—only Utica-Bonney Loc-Rite tools apply a new, exclusive wrenching concept.

Look at the conventional open end wrench (left). When used, it exerts inward force at two points on the fitting. Result: hex points can be rounded off as force is applied . . . the wrench may slip, and the fasteners may not attain the necessary torque. The uneven pressure exerted by this old-fashioned wrench can also gall threads and sealing surfaces, causing leakage.

The conventional flare nut wrench (right) is a slight improvement. It bears on four points, not two. But the basic problem is the same: it bears on the vulnerable hex points, to turn with an inward crushing force that can damage fasteners during severe application.

A false torque-tension relationship may also be created. Fasteners torqued with conventional wrenches may be damaged before desired readings are achieved . . . or the apparent "tightness" of distorted fasteners may result in leakage when the distorted fastener returns toward "round" after the wrench is disengaged.

When the applied force is really a crushing force directed toward the center of the fitting, the result may be out-of-roundness or mutilation. Such a fitting, once tightened imperfectly, may prove almost impossible to remove if heads have been damaged. Thin-wall fittings are especially susceptible to galling during tightening, which can cause abnormal thread friction, false torque readings, and internal damage.



UTICA TOOL CO., INC. Subsidiary  The Triangle Corporation

## HISTORY OF UTICA

ORANGEBURG, S. C. 29115

Back in 1895, just three years before the Spanish-American war, the first forging hammers of Utica Drop Forge & Tool began their deep booming chorus which for over 80 years has told the world a factual story of forging skill.

From a modest beginning, with a handful of employees, has grown an organization producing the most complete line of hand tools accepted by industry and individuals throughout the world.

Utica Drop Forge & Tool was founded by W. Pierrepont White and Hugh White to manufacture "nippers". In 1907, the original plant burned to the ground, and in 1908, a complete line of pliers went into manufacturing under the new roof. Around 1923, the late W. E. Lewis bought control of the company, and in 1940, employment jumped from 130 to 535, while the company produced 5,000,000 armor piercing shell cap forgings, along with a variety of special tools such as 6" linemans pliers for the Defense Department.

In 1956, Utica Drop Forge & Tool was purchased by the Kelsey-Hayes Company of Detroit, Michigan, now a division of Fruehauf Co. Under the guidance of Kelsey-Hayes, it became a leading producer of specialized pliers for industry. It also became a high ranking manufacturer of commercial pliers, and adjustable wrenches.

In 1961, the Herbrand Automotive Tool Line, established in 1876, was purchased from Bingham-Herbrand Corporation of Fremont, Ohio. All machinery, inventory, and supervisory personnel at the Herbrand Plant were moved to Utica, New York.

Utica-Herbrand Tool Division of Kelsey-Hayes Company moved to Orangeburg in the summer of 1962 from Utica, New York.

Kelsey-Hayes added Bonney tools to the automotive line in April, 1964, when the line was purchased and moved from Alliance, Ohio, into a new addition to the Orangeburg Plant.

In September, 1967, Kelsey-Hayes sold the Hand Tool Division to The Triangle Corporation. At that time the Company was renamed Utica Tool Company, Inc. and is operated as a wholly owned Subsidiary of The Triangle Corporation with headquarters in Stamford, Connecticut.

Triangle acquired Torque Controls, Inc. in 1968 and moved all manufacturing facilities from South El Monte, California to Utica's Orangeburg factory in 1970. The Torque group manufactures a full line of click, dial, and pre-set torque wrenches, in addition to torque screwdrivers, testers and calibrators consisting of 81 different items sold under the name of Utica.

Utica has employment of approximately 800 people, constituting an annual payroll of over \$6,000,000.

The total number of standard pliers manufactured in our plant is approximately 200 standard models and over 1,000 custom models made to customers' specifications. Our automotive line includes over 1,200 different catalogue items. Utica Tool Company now produces an average of 50,000 tools per day and have over 2,000,000 parts in process on the floor. The above tools are sold under the brand names of Utica/Bonney.

Utica Tool Company believes that the fully air-conditioned building, approximately 300,000 square feet, the machinery it houses, and the people who work here are the finest in the world for the manufacturing of hand tools. We have a reputation of making the highest quality tools in the world today, and we intend to make that reputation even better.