

#### TRANSPORTATION EQUIPMENT SUPPLY CO.



## Art Rod & Piston Pin Bolt Wrench

The various wrench combinations shown here aid in torquing art rod and piston pin bolts on GE engines.



1	T14582 3/4" sq. drive with 1 1/8" 12 point
	T14993 (not shown) 3/4" sq. drive with 15/16" 12 point output
	T11203 (not shown) 3/4" sq. drive with 1 1/16" 12 point output (older)
2	T15171 Adapter 1 1/8" hex shank with male square drive for T15110
	& T15100 Sockets. (use with T14582 for piston pin bolts)
3	T15110 3/4" sq. drive, 15/16" double hex output (use with T15171)
4	T15100 3/4" sq. drive 1 1/16" double hex output (use with T15171)

# T14740 Art Rod Pin Retainer

This tool is useful in keeping the rod pin in location while barring the engine during repairs. (This pin has a tendency to slide in its bore and hit the main frame).

# T11220 Art Rod Guide Pin

This pin aids placement of the art rod onto the art rod pin. Once the art rod is placed, this pin is removed and the art rod bolt can be installed easily. This provides perfect thread alignment for the bolt.





### T14140 Bearing Cap Knocker

This tool is useful in removing master rod caps. (It cannot be used inside the engine). The master rod is placed in a T16510 Rod Holding Fixture and the jaws of the puller placed around the base of the cap. Removal of the cap is accomplished by sliding the knocker against its stop thus impacting the cap.

This tool is also useful in the backshop where main frames are inverted to remove the crank-shaft. It will accommodate main bearing cap removal in this situation.

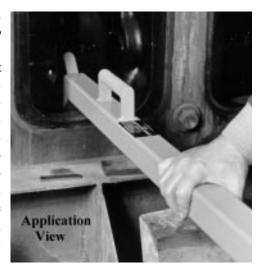


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### T54330 Master Rod Cap Lifter

Changing Conn Rod Bearings on GE Engines requires the lowering and raising of the Conn Rod Cap. This tool reduces the manual effort required to perform this operation.

Recommended Procedure: Install a T14062 Piston Retainer on one side at cylinder location of the bearing change. On the other side of the engine install a T23221 Piston Retainer (much longer leg keeps piston well into cylinder). Bar the engine so the master rod cap swings toward the cylinder that has the T23221 (long) piston retainer installed. Land both pistons on their respective retainers. Remove cap bolts and install the T54330 Master Rod Cap Lifter through the doorway where the T14062 (short) piston retainer is installed. (See application photo). Wiggle the lifter so as to release the cap and then lower it into the crankcase. Rotate crankshaft further to uncover the upper bearing. Pistons and Rods will be held up by their respective piston retainers. Remove bearing halves, clean cap and rod surfaces, install new bearing, and rotate crank back into location. Lift cap into location and bolt.





T14921
Conn Rod Bearing Retainers



These aid replacement of the master rod onto the crankshaft pin by holding the bearing half shell at its spline line.

T16551 Master Rod Lifter



This lifter aids the proper handling of master rods and features brass jaws that protect the polished flutes of the rod.



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# T16510 Connecting Rod Service Fixture

This tool facilitates the proper holding and rotation of connecting rods made necessary for taking bearing crush readings and piston installation. The rod is held by two brass jaws (T16530) and can be rotated to various positions. The spindle of the fixture is equipped with a spring loaded plunger and bushing assembly that locates the various service positions and two cam operated clamps that lock the fixture in the service position.







# T24690 Connecting Rod Checking Fixture

All connecting rod measurements, parallel and twist can be made with this fixture. The connecting rod has only to be placed in the fixture for all measurements.

1	T24690 Fixture
2	T24690CM Crank Mandrel
3	T24690PM Piston Pin Mandrel
4	T24690AM Art Rod Mandrel
5	T24690MSM Master Rod (Min. Length) Setting Mandrel
6	T24690ASM Art Rod (Min. Length) Setting Mandrel
7	T24690RDI Right Hand Dial Indicator Assembly
8	T24690LDI Left Hand Dial Indicator Assembly

