

Instructions for use of PT-6390 VALVE SEAT REMOVER

READ CAREFULLY BEFORE USING

"PT-6390" Valve Seat Remover Tool Group is a universal tool group capable of removing valve seat inserts with inside diameter of .875 to 2.312 inches.

The new tool group grinds a groove on the inside diameter of the insert, allowing for a larger, more positive pulling lip.

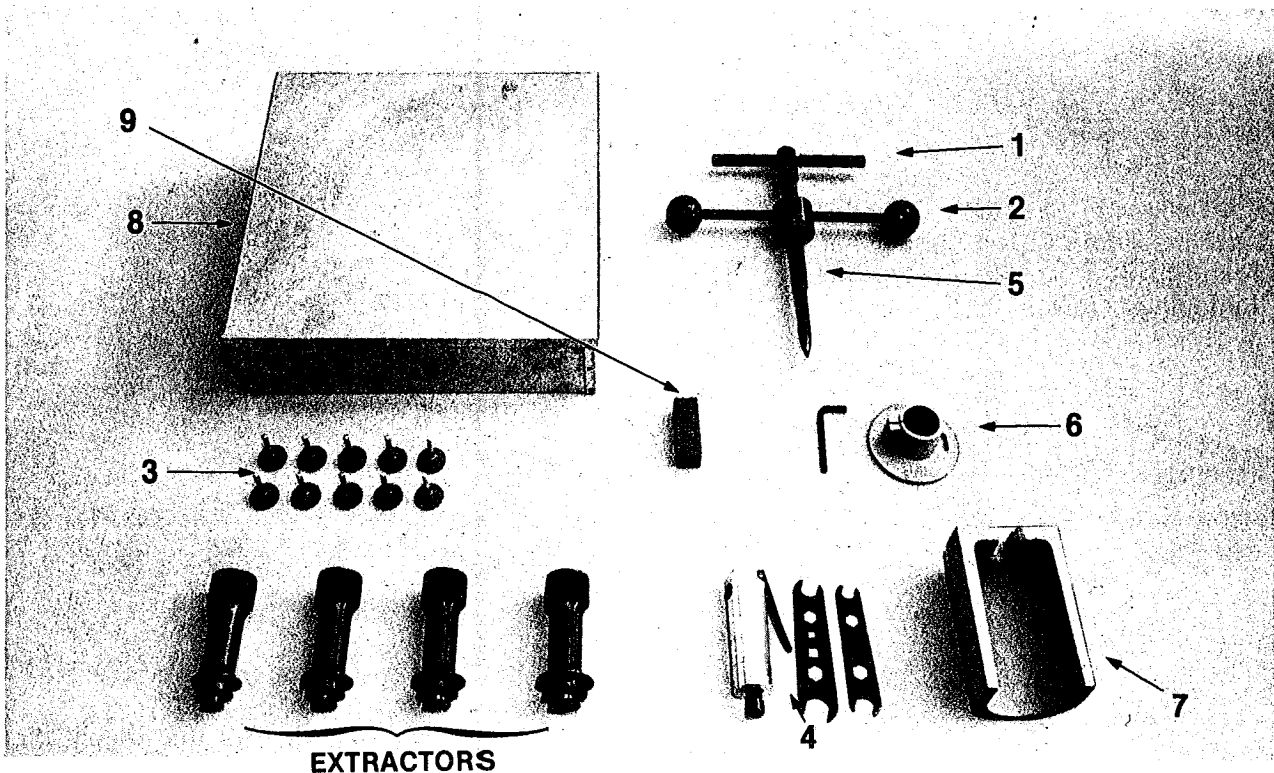
The "PT-6391" Valve Seat Remover Basic Kit includes all of details (1) to (9) in the list to the right. (Extractors are bought separately.) The "PT-6390" Valve Seat Remover Kit includes the "PT-6391" Basic Kit plus four extractors — PT-6390-001, PT-6390-002, PT-6390-003, and PT-6390-004.

DET #	PART NUMBER	DESCRIPTION
1	PT-6300-005	T-Handle Group
2	PT-6390-011	Crank Handle Assy
3	*PT-6390-021	Grinding Wheel (10)
4	PT-6390-022	Grinding Group
5	PT-6390-024	Threaded Shaft Assy
6	PT-6390-025	Grinder Base Group
7	PT-6390-027	Lifting Bridge
8	PT-6390-033	Steel Box
9	PT-16020	Dressing Stone

EXTRACTORS:

PT-6390-001	Step DIA	0.87 - 1.37 - 1.87
PT-6390-002	Step DIA	1.00 - 1.50 - 2.00
PT-6390-003	Step DIA	1.12 - 1.62 - 2.12
PT-6390-004	Step DIA	1.25 - 1.75 - 2.25

*PT-6390-021 is for one Wheel. Ten wheels included in kit.

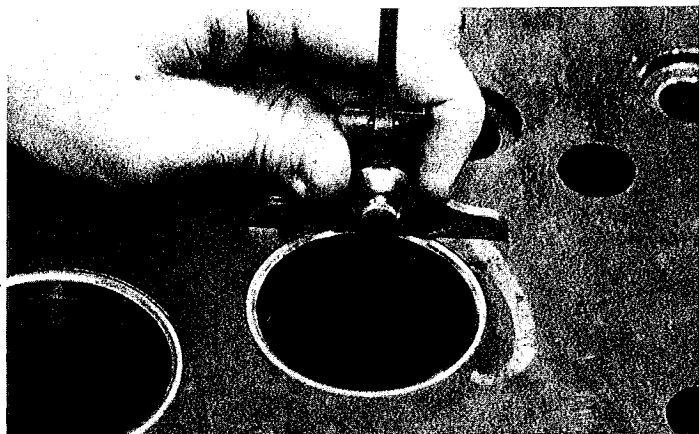


Kent-Moore
TOOL DIVISION

P.O. BOX 647 ■ 827 JEFFERSON AVE.
CLOVIS, CALIFORNIA 93613
Telephone: 209/299-4351



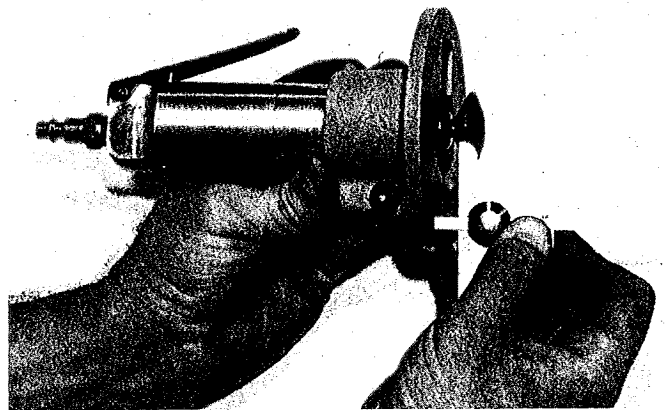
1. Measure the distance from the surface of the cylinder head to the point on the insert where the groove will be ground. This point should be approximately .060 inches below any angular face on the valve seat insert.



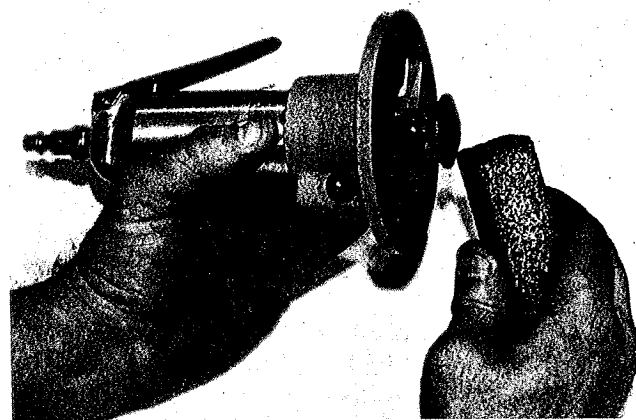
2. Install the PT-6390-025 Grinder Base on the PT-6390-022 Grinder.



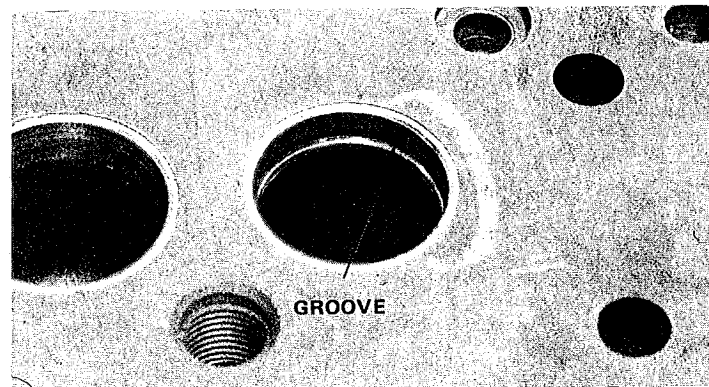
3. Install a PT-6390-021 Grinding Wheel into the grinder and set the depth of the grinder base to the dimension found in Step #1. Secure the base to the grinder by tightening screw.



Please note!!! For Valve Seat inserts with an inside diameter smaller than the diameter of the grinding wheel (1.250"), use the PT-16020 Dressing Stone to make the grinding wheel smaller. The dressing stone will also be useful in keeping a sharp edge on the grinding wheels to optimize cutting speed. When dressing a worn wheel, the edge of the wheel should be made just slightly wider than the width of the steps on the extractors.



4. Grind a groove around the inside circumference of the valve seat insert. The groove should be ground approximately .030 inches deep (on a side).



5. Select the extractor with the largest diameter extractor step that will fit into the inside diameter of the valve seat insert.

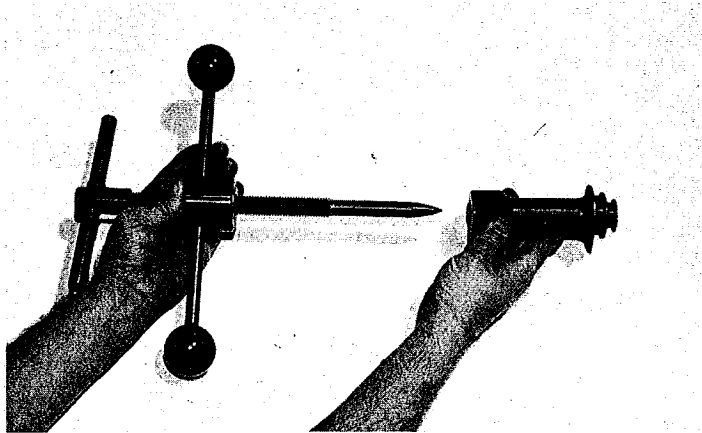


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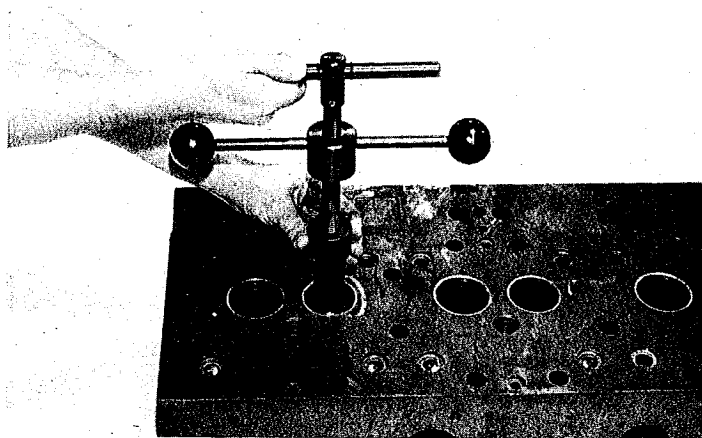
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Telephone: 209/299-4351



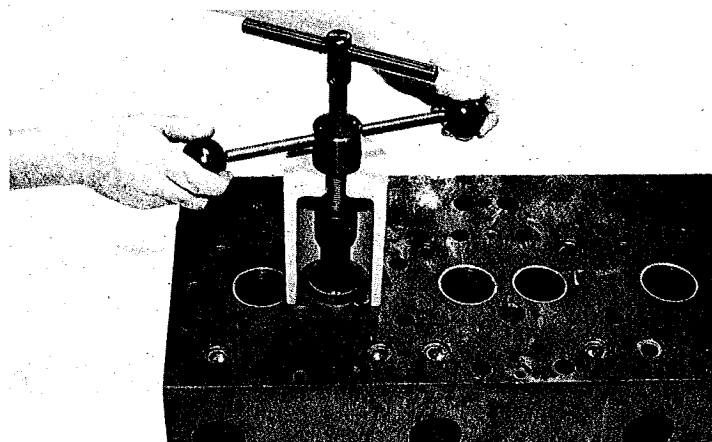
6. Attach the PT-6390-011 Crank Handle onto the PT-6390-024 Threaded Shaft Assembly. Install the extractor on the PT-6390-024 Threaded Shaft Assembly.



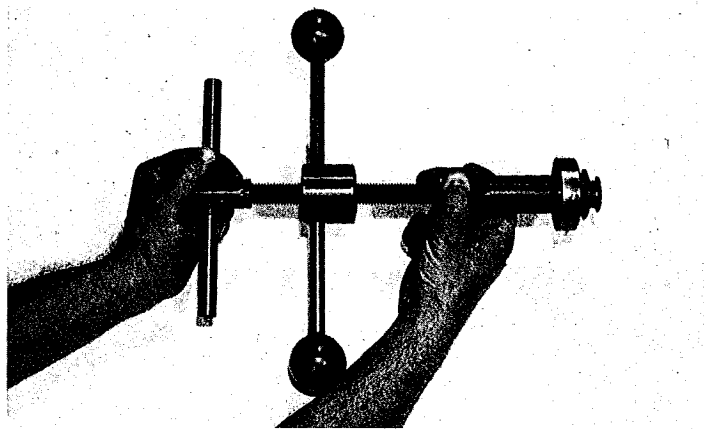
7. Locate the extractor step in the groove in the valve seat insert and turn the threaded shaft assembly to fully expand the extractor. Use only a moderate amount of force to expand the extractor into the groove.



8. Install the PT-6390-027 Lifting Bridge and turn the PT-6390-011 Crank Handle Assembly to remove the insert from the cylinder head.



9. Turn the threaded shaft to release the insert from the extractor.



AVAILABLE ACCESSORY

When working on Caterpillar 5.4 (90° Vee), G343, D343 and 1693 cylinder heads a specially designed optional PT-6381-003 Wedge Plate is a must. It is designed to correct the angle of the cylinder head to obtain a perpendicular surface to pull the valve seat insert.



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**** NOTES ****



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CLOVIS, CALIFORNIA 93613
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