

6480 ANGLE TIMING GAGE SETS  
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6482 MASTER TIMING GAGE SETS  
6483

 **TOOLS INC.**

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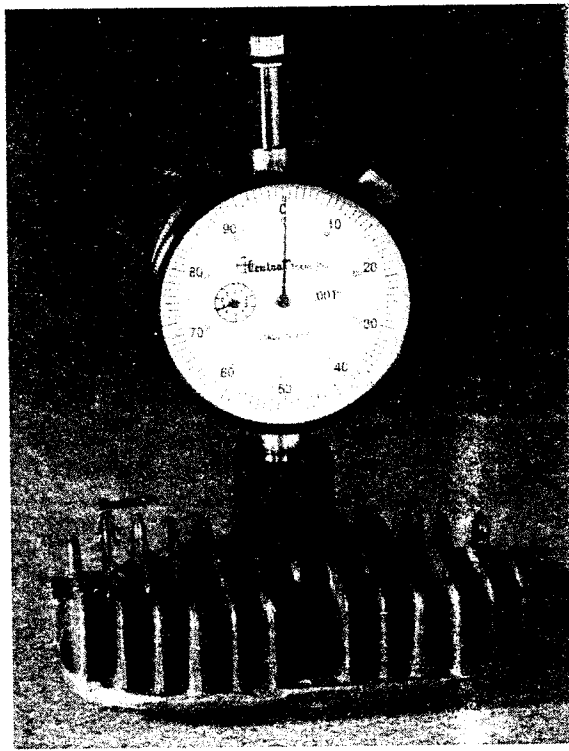


FIGURE 1

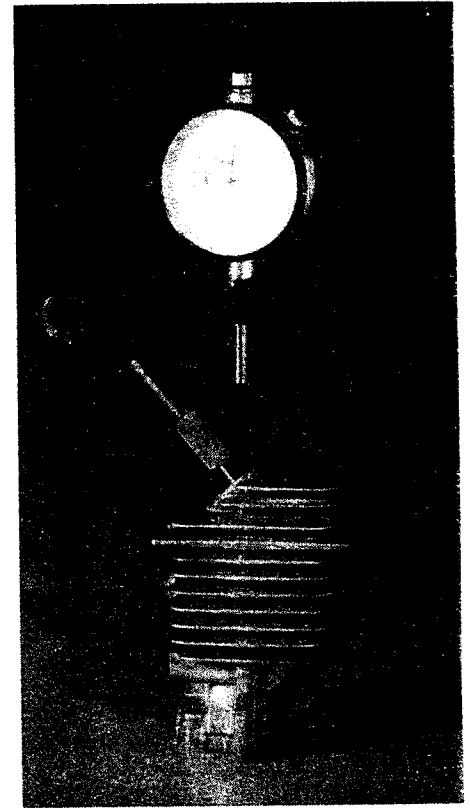


FIGURE 2

## COMPONENTS

* Sectional Rod 8" x 5/16"	4203	* 18mm Extender	4224
* C-Clamp	4205	Thumb screw	4226
* 2 Diameter Rod	4209	Set Screw	4227
Contact Point 1"	4210	Plunger Extension	4295
* 3/8" Roller Contact	4213	Angle Compensating Stud	4296
* Plunger Extension 1"	4214	Thumb screw	4297
Contact Point	4216	Angle Compensating Arm	4298
* Rod Connector	4217	14mm Slotted Adaptor	4300
* Indicator Clamp	4218	18mm Slotted Adaptor	4301
Contact Point 2" Long	4222	Indicator (English)	4341
* 14mm Extender	4223	Indicator (Metric)	4390

\* These components are only in the Master Sets.

The master set contains all the necessary accessories for timing any two cycle engine with straight or angled spark plug. Timing can be accomplished with the head on or off. Also included are extenders for timing engines with extremely high cylinder head fins.

## SETTING UP

### Engines with *straight* spark plugs

1. Install 1" long contact (4210).
2. Clamp indicator into adaptor and then screw assembly into spark plug hole, as in Figure 1. Do not force. If spark plug threads are tight, indicator may become damaged.

### Engines with *angled* spark plug holes

1. Attach *slotted* 14mm or 18mm adaptor to angle compensating stud (4296) so that slot is in straight up position (Figure 2).
2. Loosen thumb screw, then screw assembly into spark plug hole.
3. Install 1" long plunger extension (4295).
4. Place indicator in angle compensating arm, making sure that plunger extension passes through slot in adaptor, as in Figure 2. Tighten thumb screw.
5. Adjust angle of compensating arm so that indicator is parallel to the cylinder (Figure 2). Tighten thumb screw.

NOTE: On some engines the cooling shroud may interfere with the indicator plunger. In such cases, file a small slot in the shroud for plunger clearance.

### Engines with head removed \*

1. Secure "C" clamp to a cylinder head stud or other convenient projection.
2. Screw rod into clamp.
3. Using connector, fasten two-diameter rod to threaded rods.
4. Clamp indicator to two-diameter rod so that indicator plunger is depressed against top of piston at top dead center.

## TIMING THE ENGINE

1. Attach spark plug wire to engine frame (ground).
2. Locate top dead center (TDC). TDC is the exact position where travel of the indicator hand reverses direction as you rotate the flywheel.
3. At this point, rotate bezel of indicator so zero on dial aligns with indicating hand.
4. Back piston down the number of thousandths before TDC that is specified in the engine manufacturer's manual. Adjust points to open at this setting. Securely lock points.
5. Check your setting by rotating flywheel one full turn in the direction of normal rotation. Points should open at the proper indicator reading.

If a continuity tester is used, light will dim when points open.

## EXTENDER KIT \*

### For timing engine with high cooling fins

Two special adaptor extensions (with 14mm and 18mm threads) are provided for such engines. The 1" long contact is used with these extensions.

## ROLLER CONTACT \*

This contact is provided in case it is impossible to position the indicator plunger at right angles to the top of the piston. Using this contact permits travel of the plunger across the top of the piston as it moves up and down in the cylinder.

NOTE: Make sure that there is sufficient room for the piston to come to TDC without jamming the roller against the adaptor, causing damage to the piston and the indicator.

\* These components are only in Master Sets.