



## Rotary Valve Timing

When installing a Sea-Doo 587, 657, 657X, 717, 787 or 787 RFI engine, your rotary valve must be timed. To do so you will need a timing degree wheel and the degree specification for your particular engine. Please refer to the chart below for degree specifications:

<u>YEAR</u>	<u>MODEL</u>	<u>VALVE OPENING</u>	<u>TIMING OPENING (BTDC)</u>	<u>TIMING CLOSING (ATDC)</u>
1988	SP	132	132	52
1989	SP	132	132	52
1990	SP	132	132	52
	GT	132	132	52
1991	SP	147	115	80
	XP	132	115	65
	GT	132	115	65
1992	SP	147	115	80
	XP	147	130	65
	GTS	147	115	80
	GTX	147	130	65
1993	SP	147	115	80
	SPX	147	130	65
	SPI	147	115	80
	XP	147	130	65
	GTS	147	115	80
	GTX	147	130	65
1994	SP	147	130	65
	SPX	147	130	65
	SPI	147	130	65

**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231



	XP (5854)	159	149	65
	XP (5855)	147	130	65
	GTS	147	130	65
	SP	147	130	65
1995	SP	147	130	65
	SPX	159	147	65
	SPI	147	130	65
	XP 800	159	147	65
	XP	159	147	65
	GTS	147	130	65
	GTX	159	147	65
	HX	159	147	65
1996	SP	147	130	65
	SPX	159	147	65.5
	SPI	147	130	65
	XP	159	146.5	64
	GSX	159	146.5	64
	GTS	147	130	65
	GTI	159	147	65.5
	GTX	159	146.5	64
	HX	159	147	65.5
1997	SP	132	134	51.5
	SPX	159	146.5	64
	GS	159	147	65.5
	GSI	159	147	65.5
	GSX	159	146.5	64

**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231



	GTS	159	147	65.5
	GTI	159	147	65.5
	GTX	159	146.5	64
	HX	159	147	65.5
	XP	159	146.5	64
1998	SPX	159	147	63.5
	GS	159	147	65.5
	GTS	159	147	65.5
	GTI	159	147	65.5
	GTX RFI	159	147	63.5
1999	SPX	159	147	63.5
	GS	159	147	65.5
	GSX RFI	159	147	63.5
	GTS	159	147	65.5
	GTI	159	147	65.5
	GTX RFI	159	147	63.5
2000	GS	159	147	65.5
	GSX RFI	159	147	63.5
	GTS INTER.	159	147	65.5
	GTI	159	147	65.5
	GTX RFI	159	147	63.5
2001	GS	159	147	65.5
	GSX RFI	159	147	63.5
	GTS	159	147	65.5
	GTI	159	147	65.5
	GTX RFI	159	147	63.5

**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231

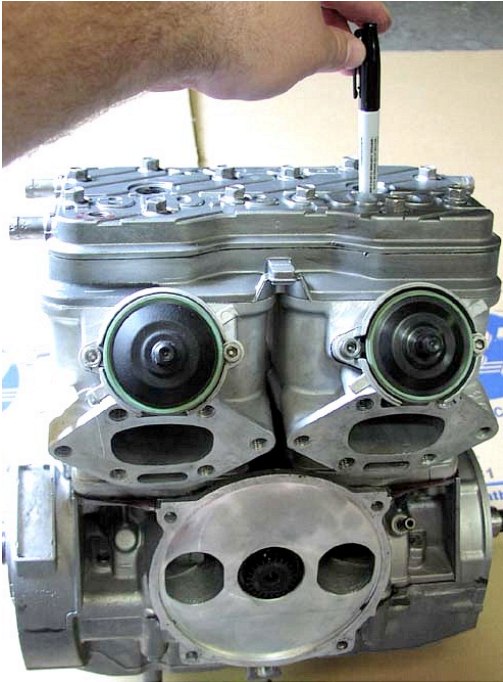


2002	GTI	159	147	65.5
	GTI LE	159	147	65.5
	GTX RFI	159	147	63.5
	GTI	159	147	65.5
	GTX RFI	159	147	63.5

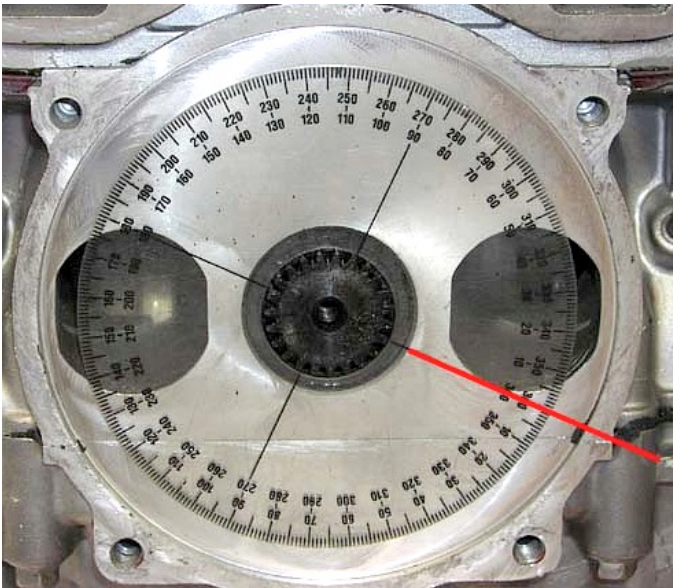
**\*Please remember the photos below are for illustration purposes only. Please follow your own settings.**



First place a screwdriver, pen, etc., or use a TDC gauge in the front (MAG) cylinder through the spark plug hole. Then, turn the crankshaft to find the **Top Dead Center** of the piston.



Next, place a timing degree wheel over the rotary valve gear, aligning the 360° mark at the bottom of the front (MAG) intake port.



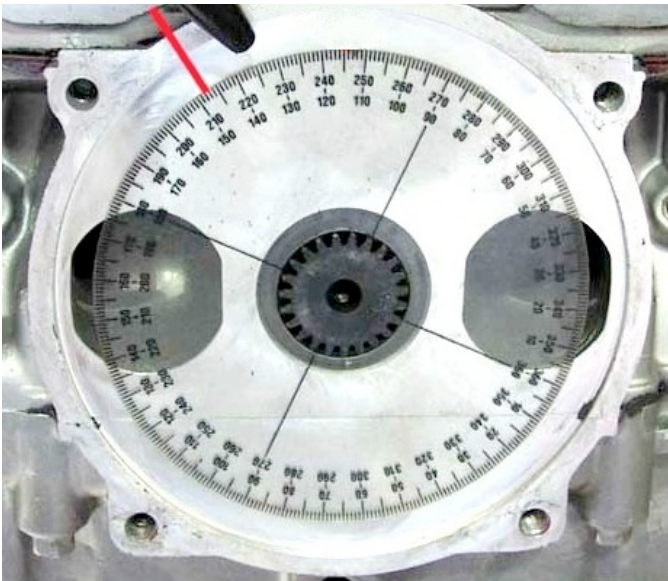
**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231



Now find the timing spec for your particular year and model. Using the inside track of numbers, make a mark on the case corresponding to the timing spec for your engine. This will be somewhere around 11 or 12 o'clock on the case. **NOTE: do not automatically use the notch on the case to time by - you need to make sure it's timed correctly.**



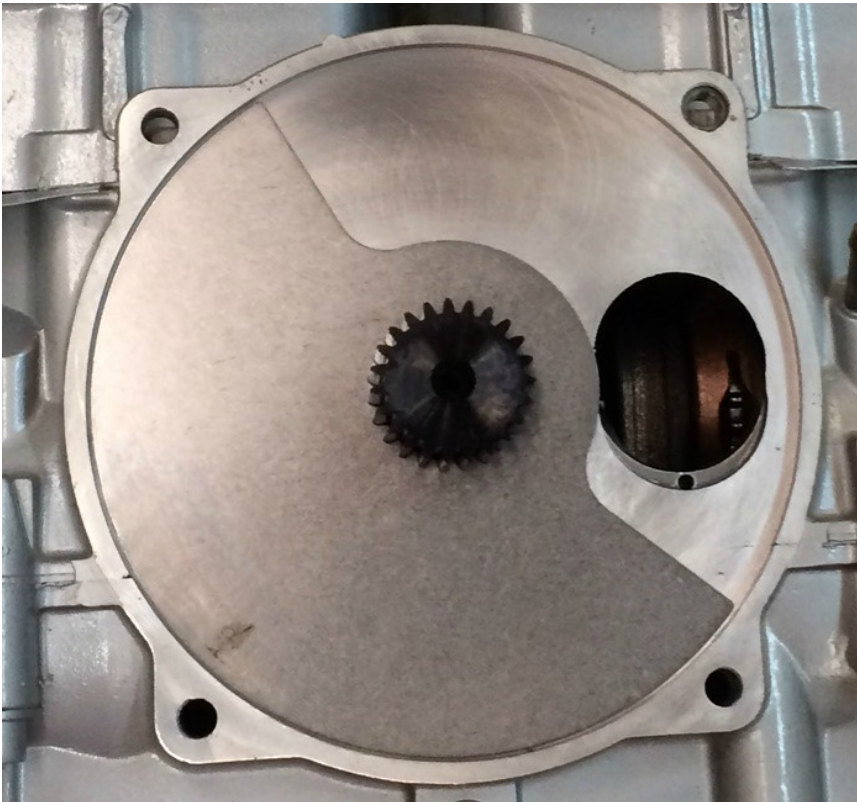
**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231



Align the rotary valve (as shown below) so that the port is open, and the edge of the valve matches precisely with the mark. **NOTE: the valve is asymmetrical. Flip it around to find the closest match.**



**SBT, Inc.**

1401 N Myrtle Avenue Clearwater, FL 33755

1.877.330.0231