

SECTION II—IGNITION SYSTEM

1. SPARK PLUG CABLE

All 361 cu. in. "Golden Commando 395" engines for 1959 incorporate standard A32 spark plugs along with a resistance type spark plug cable to eliminate radio interference. For identification purposes, this new cable has "RADIO" printed on it.

The new cable uses a graphite or conducting rubber-type core replacing the copper wire found in the center of standard spark plug cable. Full contact is made between the core and terminals by means of a short wire hairpin pushed into the ends of the cable. Certain precautions must be observed in handling to prevent damage to the core.

The cable should be removed from the spark plug by grasping the cable cover and pulling *straight* off with a steady, even pull. Pulling sideways could jam the terminal on the spark plug and cause the cable to separate from the terminal. Also, the cable terminal should not be crimped to the point that excessive force is required to remove it from the spark plug. The cables should never be removed by giving them a quick jerk.

If a damaged core is suspected, a resistance check with an ohmmeter should be made. The resistance of the various plug cables will vary because of the different lengths—but the maximum any cable should read is 20,000 ohms resistance measured from terminal

to terminal. If a cable has appreciably more resistance than 20,000 ohms, check to be sure the terminals are in contact with the hairpin, and the hairpin is in full contact with the core. If the terminals and hairpins are properly installed and the cable resistance is still appreciably more than 20,000 ohms, the cable should be replaced.

A new terminal should never be attached to the resistance core cable unless the wire hairpin is in place, otherwise, contact will not be maintained with the core. This will result in arcing and burning of the core which will cause engine malfunctioning and radio interference.

HIGH TENSION CABLES WITH BUILT-IN RESISTORS

No. 1 Wire 8300 to 16600 Ohms
No. 2 Wire 5500 to 11000 Ohms
No. 3 Wire 8100 to 16200 Ohms
No. 4 Wire 6000 to 12000 Ohms
No. 5 Wire 8800 to 17600 Ohms
No. 6 Wire 6300 to 12600 Ohms
No. 7 Wire 9400 to 18800 Ohms
No. 8 Wire 7200 to 14400 Ohms

DISTRIBUTOR MECHANICAL ADVANCE AND VACUUM CONTROL SPECIFICATIONS

Model	IBR-4001	IBP-4003F	IBP-4003H	IBS-4006C
Governor Advance Distributor Degrees and RPM	0° @ 2.50 to 450	0° @ 330 to 560	0° @ 300 to 410	0° @ 370 to 530
	0° to 2° @ 450	0° to 2° @ 560	0° to 2° @ 410	0° to 3° @ 530
	5.50 to 7.50 @ 1150	2° to 4° @ 800	3.5° to 5.5° @ 600	2.3° to 5.1° @ 650
	7.5° to 9.5° @ 1800	3° to 10° @ 2300	7.5° to 9.5° @ 2200	5.5° to 7.5° @ 830
	—	—	—	8.5° to 10.5° @ 2000
Vacuum Advance Distributor De- grees and RPM	0° @ 5.25" to 6.75"	0° @ 6.2" to 7.3"	0° @ 4.5" to 6.6"	0° @ 7.5 to 9.2"
	3.5° to 5.5° @ 10"	7.5° to 10° @ 12"	4.6° to 7.6° @ 10"	5.8° to 9° @ 13.1"
	3.5° to 10.5° @ 16"	12° to 14.75° @ 16"	8.5° to 11.5° @ 13.2"	11.5° to 14.5° @ 18.2"

Note: All figures are in distributor RPM and distributor degrees. For engine RPM and degrees of crankshaft rotation, multiply RPM and degrees figures by 2.

2. IGNITION TIMING

The 6-Cyl. and V-8 engine (with 2 barrel carburetors) are designed to operate on a good grade of regular gasoline. V-8 engines equipped with a four barrel carburetor are designed to operate at peak efficiency with premium gasoline.

The engine will give its best performance when timed to specifications. Degree timing marks are located on a bracket attached to the chain-case cover on all engines and range from 0 to 10 deg. ahead of top center, Figure 1.

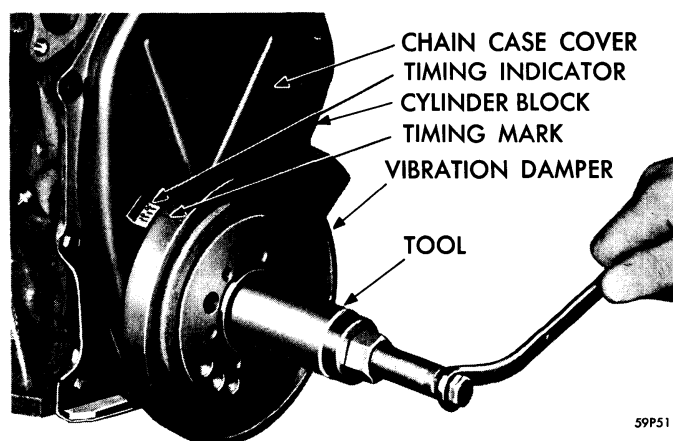


Figure 1—Timing marks—typical of all engines

SECTION III—STARTING SYSTEM

Increased starting performance is provided on 1959 models. For complete performance testing and servicing procedures, refer to the 1957-58 *Plymouth Ser-*

vice Manual. Refer to Data and Specifications chart in this manual when tests are performed.

STARTING MOTOR DATA AND SPECIFICATIONS

Models		M 1, M 2	
Starter Model		MDU-6003 (6-Cyl. and 318 cu. in. V-8)	MDT-6001 (361 cu. in. V-8)
Voltage		12 Volts	
No. of Poles		4	
No. of Brushes		4	
Spring Tension		32-48 oz.	
Drive		Folo—Thru	
End Play		.005 in. Min.	
Maximum allowable armature runout		.003 in.	
Free Running Test	Voltage	11 Volts	
	Amperage Draw	50 Amps. Max.	
	Minimum Speed rpm	5500 Min.	3800 Min.
Stall Torque Test	Torque Ft. Lb.	9	8.5
	Voltage	4	4
	Amperage Draw	355	350
	Pinion to Housing Clearance	.052 in. to .204 in. (including end play)	