

CARBURATION

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VEHICULE MODEL	QUALIFIER 4 125	QUALIFIER 4 175	QUALIFIER 4 250	QUALIFIER 4 400	SONIC 500
Carburetor Type	Mikuni VM 34			Mikuni VM 38	Mikuni VM 36
Carburetor number	VM 34-288	MV 34-259	MV 34-266	VM 38-84	VM 36-120
Main jet	310	260		320	390
Needle jet	Q2 - 159		P6 - 159	Q2 - 247	Q6 - 176
Idle jet	40	60			40
Needle setting (groove from top)	3rd				4th
Needle identification	6DH4-3			6DH8-3	6I 1-4
Slide	3.5		3.0		
Air screw adjustment $\pm 1/4$	1 1/2 turn out		1 1/4 turn out	1 1/2 turn out	1 1/4 turn out
Float level * mm (in)	36.5 $\pm$ 1 (1.437 $\pm$ 0.039)			33 $\pm$ 1 (1.300 $\pm$ 0.039)	
Air jet	N.A.				1.0
Air filter	K & N oil wetted filter, with impregnated air filter sock				
Idle speed	2000 R.P.M.			1500 R.P.M.	1200 R.P.M.
Fuel grade	Premium (leaded or unleaded)				Premium unleaded

N.A.: not applicable

* Adjust float arm parallel with carburetor body, it should be in accordance with the specification.

CARBURETOR SETTING APPLICATION CHART

QUALIFIER 4 125

Carburetor VM 34/288

— Replace the main jet and needle position as per carburetor setting application chart.

TEMPERATURE Altitude Meters (feet)	0°C (0°F)	-40°C (-40)	-30°C (-20)	-20°C (0)	-5°C (20)	5°C (40)	15°C (60)	25°C (80)	35°C (100)	Needle & E clip position
0 Sea level		380	360	350	340	330	310	300	290	6DH-4 3rd
600 m (2,000)		360	350	330	320	310	300	280	270	
1,200 m (4,000)		340	330	320	300	290	280	260	250	
1,800 m (6,000)		320	310	300	280	270	260	240	230	6DH-4 2nd
2,400 m (8,000)		300	290	280	260	250	240	220	210	
3,000 (10,000)		280	270	260	250	230	220	210	200	

○ NOTE: Needle & "E" clip position may have to be revised after testing.

▼ CAUTION: These adjustments are guidelines only. Specific adjustments vary with temperature, altitude and terrain conditions. Always observe spark plug condition for proper jetting.

SECTION 08 TECHNICAL DATA
SUB-SECTION 02 (CARBURATION)

QUALIFIER 4 175-250

Carburetor VM 34-259 & VM 34-266

— Replace the main jet and needle position as per carburetor setting application chart.

TEMPERATURE 0°C (0°F) -40°C (-40) -30°C (-20) -20°C (0) -5°C (20) 5°C (40) 15°C (60) 25°C (80) 35°C (100) Altitude Meters (feet) 0 Sea level 600 m (2,000) 1,200 m (4,000) 1,800 m (6,000) 2,400 m (8,000) 3,000 (10,000)									Needle & E clip position
	320	310	290	280	270	260	250	240	6DH-4 3rd
	300	290	280	270	260	250	240	230	
	290	280	270	250	240	230	220	210	
	270	260	250	240	230	220	210	200	6DH-4 2nd
	260	240	230	220	210	200	190	180	
	240	230	220	210	200	190	180	160	

○ NOTE: Needle & "E" clip position may have to be revised after testing.



CAUTION: These adjustments are guidelines only. Specific adjustments vary with temperature, altitude and terrain conditions. Always observe spark plug condition for proper jetting.

SECTION 08 TECHNICAL DATA
SUB-SECTION 02 (CARBURATION)

QUALIFIER 4 400

Carburetor VM 38/84

— Replace the main jet and needle position as per carburetor setting application chart.

TEMPERATURE Altitude Meters (feet)	0°C (0°F)	-40°C (-40)	-30°C (-20)	-20°C (0)	-5°C (20)	5°C (40)	15°C (60)	25°C (80)	35°C (100)	Needle & E clip position
0 Sea level		390	380	360	350	340	320	310	300	6DH8 3rd
600 m (2,000)		370	360	340	330	320	300	290	280	
1,200 m (4,000)		350	340	330	310	300	290	270	260	
1,800 m (6,000)		330	320	310	290	280	270	250	240	6DH8 2nd
2,400 m (8,000)		310	300	290	270	260	250	230	220	
3,000 (10,000)		290	280	270	250	240	230	210	200	

○ NOTE: Needle & “E” clip position may have to be revised after testing.

▼ CAUTION: These adjustments are guidelines only. Specific adjustments vary with temperature, altitude and terrain conditions. Always observe spark plug condition for proper jetting.

SONIC 500

Carburetor VM 36/120

— Replace the main jet and needle position as per carburetor setting application chart.

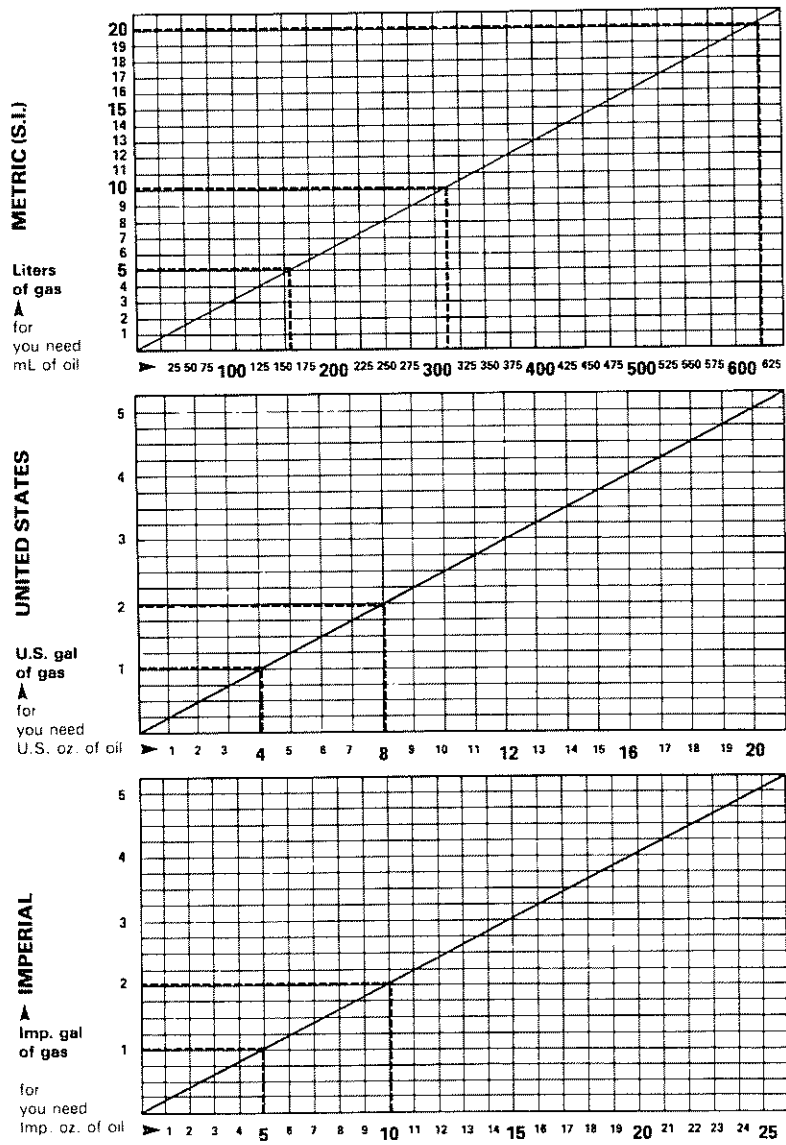
TEMPERATURE Altitude Meters (feet) 0°C (0°F)	-40°C (-40)	-30°C (-20)	-20°C (0)	-5°C (20)	5°C (40)	15°C (60)	25°C (80)	35°C (100)	Needle & E clip position
0 Sea level	480	460	440	430	410	390	380	360	611 4th
600 m (2,000)	450	440	420	400	390	370	350	340	
1,200 m (4,000)	430	410	400	380	360	350	330	310	
1,800 m (6,000)	400	390	370	360	340	320	310	290	611 3rd
2,400 m (8,000)	380	370	350	330	320	300	280	270	
3,000 (10,000)	360	340	330	310	290	280	260	240	

○ NOTE: Needle & "E" clip position may have to be revised after testing.

▼ CAUTION: These adjustments are guidelines only. Specific adjustments vary with temperature, altitude and terrain conditions. Always observe spark plug condition for proper jetting.

FUEL / OIL MIXING CHARTS (32 to 1 ratio)

125-175-250 Models

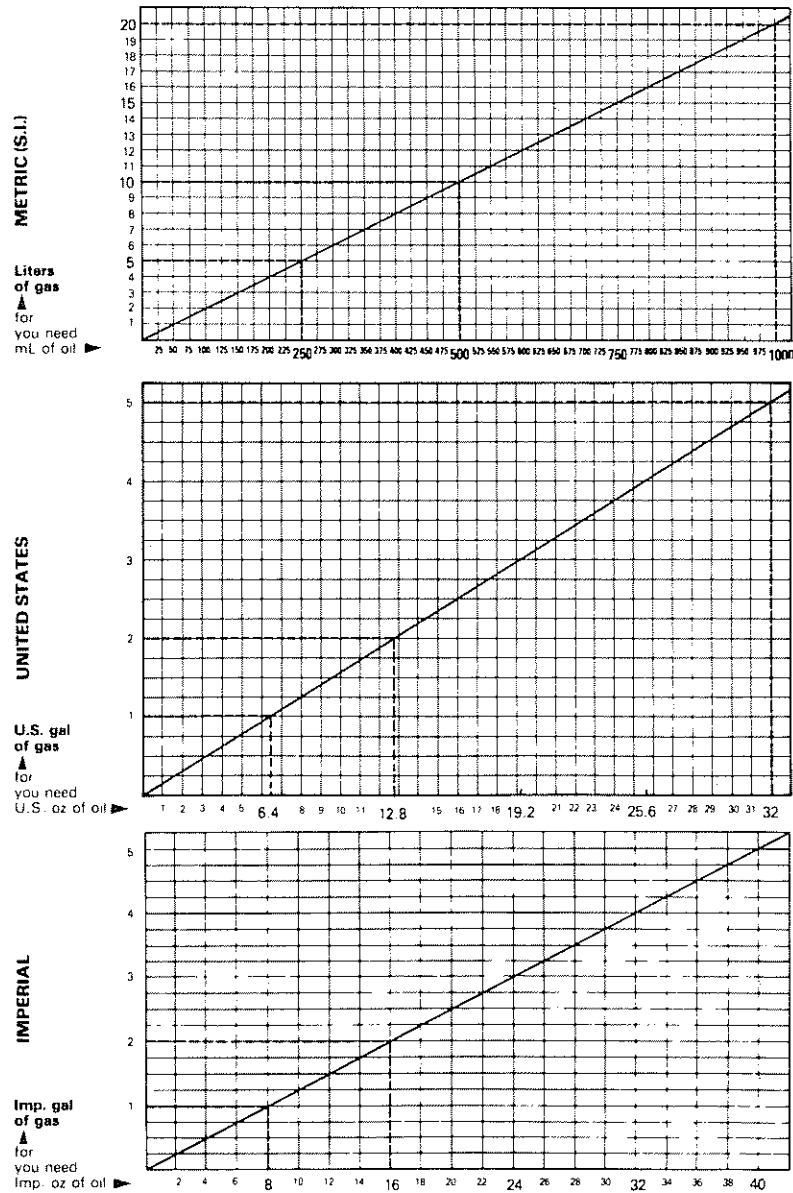


Use Castrol Injector Oil (P/N 413 801 500) or any equivalent high quality 2 cycle oil mixed with leaded or unleaded premium gasoline.

 CAUTION: Never use outboard oils, straight mineral oils.

FUEL / OIL MIXING CHARTS (20 to 1 ratio)

400 Model



Use Castrol Injector Oil (P/N 413 801 500) or any equivalent high quality 2 cycle oil mixed with leaded or unleaded premium gasoline.

 **CAUTION:** Never use outboard oils, straight mineral oils.