



Desmoquatro Valve Adjustment Shim Calculations

Bike: ST4s
 Owner: Vinnie

Mileage: 29,368
 Date: 2/28/2020

Heads cleaned and Valves
 cleaned and lapped

Conversion charts	Value	Converted
Metric to English	0.100	0.004
English to Metric	0.004	0.102

inch
mm

Ducati rec	Intake Opener shim	Intake Closer shim
opn.05mm-.18mm clsr.15mm-.25mm	0.100	0.100
opn.05mm-.23mm clsr.10mm-.20mm	0.150	0.100

Required for calculations
 Input recommended shim
 clearance (LT) **All clearances in mm**

Ducati Spec (mm)	Intake	Opener	Closer	Exhaust	Opener	Closer
		0.050	0.160		0.050	0.160
		0.100	0.160		0.100	0.160

Vertical cylinder exhaust valve Left	Input values in blank cells			Calculated information		
		Unloaded Gap	Loaded Gap		Opener shim	Closer shim
	STEP 1 Measured gap values	0.102	0.229	Result of step 1 Actual GAP values	0.102	0.127
	STEP 2 Current shim size	2.850	3.070	Recommended shim	2.80	3.10
	STEP 3 Actual shim used	2.850	3.070	Estimated clearance with new shim installed	0.10	0.13
	STEP 4 Measured gap values	0.102	0.229	Result of step 4 New actual gap	0.102	0.127
Vertical cylinder exhaust valve Right	Input values in blank cells			Calculated information		
	STEP 1 Measured gap values	0.178	0.279	Result of step 1 Actual GAP values	0.178	0.101
	STEP 2 Current shim size	2.700	2.950	Recommended shim	2.73	2.95
	STEP 3 Actual shim used	2.730	2.950	Estimated clearance with new shim installed	0.15	0.10
	STEP 4 Measured gap values	0.152	0.254	Result of step 4 New actual gap	0.152	0.102
Vertical cylinder intake valve Left	Input values in blank cells			Calculated information		
	STEP 1 Measured gap values	0.152	0.229	Result of step 1 Actual GAP values	0.152	0.077
	STEP 2 Current shim size	2.950	2.850	Recommended shim	3.002	2.827
	STEP 3 Actual shim used	2.950	2.800	Estimated clearance with new shim installed	0.152	0.127
	STEP 4 Measured gap values	0.152	0.254	Result of step 4 New actual gap	0.152	0.102
Vertical cylinder intake valve Right	Input values in blank cells			Calculated information		
	STEP 1 Measured gap values	0.064	0.076	Result of step 1 Actual GAP values	0.064	0.012
	STEP 2 Current shim size	3.100	2.920	Recommended shim	3.06	2.83
	STEP 3 Actual shim used	3.100	2.830	Estimated clearance with new shim installed	0.06	0.10
	STEP 4 Measured gap values	0.064	0.152	Result of step 4 New actual gap	0.064	0.088



Desmoquattro Valve Adjustment Shim Calculations

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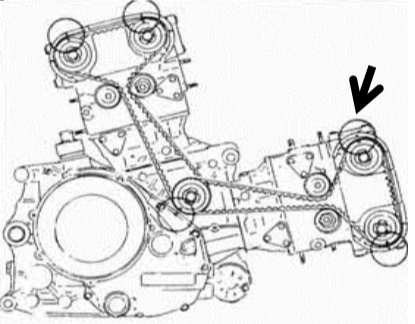
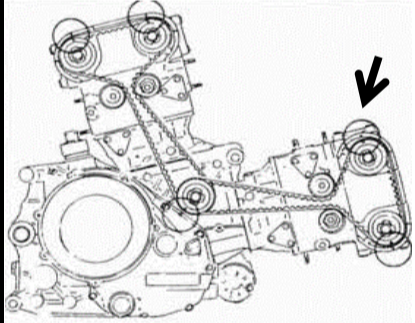
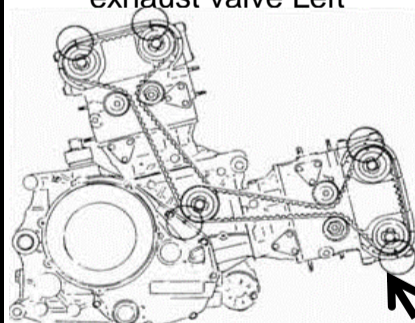
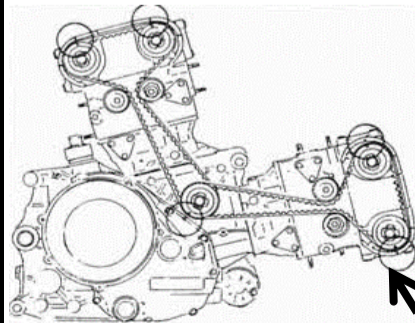
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Conversion charts	Value	Converted
Metric to English	0.100	0.004
English to Metric	0.004	0.102

inch
mm

Ducati rec opn.05mm-.18mm clsr.15mm-.25mm opn.05mm-.23mm clsr.10mm-.20mm	Required for calculations Input recommended shim clearance (LT) All clearances in mm	Intake Opener shim	Intake Closer shim
		0.100	0.100
		Exhaust Opener shim	Exhaust Closer shim
		0.150	0.100

Ducati Spec (mm)	Intake	Opener	0.050	0.160	Exhaust	Opener	0.050	0.160
		Closer	0.100	0.160		Closer	0.100	0.160

		Input values in blank cells			Calculated information			
Horizontal cylinder intake valve Left 	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim		
	Measured gap values	0.127	0.152	Actual GAP values	0.127	0.025		
	STEP 2	Opener shim	Closer shim	Recommended shim	3.03	2.97		
	Current shim size	3.000	3.040					
	STEP 3	Opener shim	Closer shim	Estimated clearance with new shim installed	0.13	0.09		
Actual shim used	3.000	2.970	STEP 4	Unloaded Gap	Loaded Gap	Result of step 4	Opener shim	Closer shim
Measured gap values	0.127	0.203	New actual gap	0.127	0.076			
Horizontal cylinder intake valve Right 	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim		
	Measured gap values	0.152	0.203	Actual GAP values	0.152	0.051		
	STEP 2	Opener shim	Closer shim	Recommended shim	3.05	2.95		
	Current shim size	3.000	3.000					
	STEP 3	Opener shim	Closer shim	Estimated clearance with new shim installed	0.15	0.10		
Actual shim used	3.000	2.950	STEP 4	Unloaded Gap	Loaded Gap	Result of step 4	Opener shim	Closer shim
Measured gap values	0.152	0.229	New actual gap	0.152	0.077			
Horizontal cylinder exhaust valve Left 	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim		
	Measured gap values	0.152	0.229	Actual GAP values	0.152	0.077		
	STEP 2	Opener shim	Closer shim	Recommended shim	2.802	3.097		
	Current shim size	2.800	3.120					
	STEP 3	Opener shim	Closer shim	Estimated clearance with new shim installed	0.152	0.077		
Actual shim used	2.800	3.120	STEP 4	Unloaded Gap	Loaded Gap	Result of step 4	Opener shim	Closer shim
Measured gap values	0.152	0.229	New actual gap	0.152	0.077			
Horizontal cylinder exhaust valve Right 	STEP 1	Unloaded Gap	Loaded Gap	Result of step 1	Opener shim	Closer shim		
	Measured gap values	0.076	0.203	Actual GAP values	0.076	0.127		
	STEP 2	Opener shim	Closer shim	Recommended shim	2.79	3.13		
	Current shim size	2.860	3.100					
	STEP 3	Opener shim	Closer shim	Estimated clearance with new shim installed	0.08	0.13		
Actual shim used	2.860	3.100	STEP 4	Unloaded Gap	Loaded Gap	Result of step 4	Opener shim	Closer shim
Measured gap values	0.076	0.203	New actual gap	0.076	0.127			