



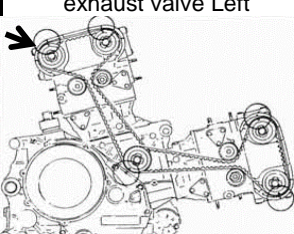
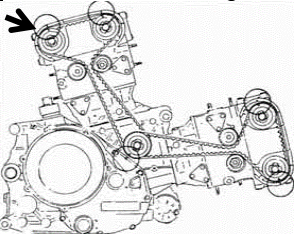
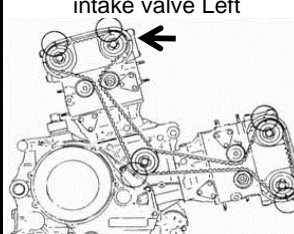
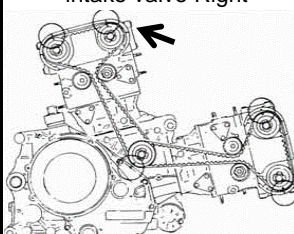
## Desmoquatro Valve Adjustment Shim Calculations

Bike: ST4s Mileage: 29,368 Heads cleaned and Valves cleaned and lapped  
 Owner: Vinnie Date: 2/15/2020

Conversion charts	Value	Converted	
<b>Metric to English</b>	<b>0.100</b>	<b>0.004</b>	inch
<b>English to Metric</b>	<b>0.004</b>	<b>0.102</b>	mm

		Intake Opener shim	Intake Closer shim
<b>Ducati rec</b>  opn.05mm-.18mm clsr.15mm-.25mm	Required for calculations Input recommended shim clearance (LT) <b>All clearances in mm</b>	0.100	0.100
		0.150	0.100

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

	Input values in blank cells			Calculated information		
Vertical cylinder exhaust valve Left 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.152	0.203	Actual GAP values	0.152	0.051
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.85	3.07
	Current shim size	2.850	3.120	Estimated clearance with new shim installed	0.15	0.10
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.102
Actual shim used	2.850	3.070	New actual gap	0.152	0.102	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.254				
Vertical cylinder exhaust valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.178	0.279	Actual GAP values	0.178	0.101
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.73	2.95
	Current shim size	2.700	2.950	Estimated clearance with new shim installed	0.15	0.10
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.102
Actual shim used	2.730	2.950	New actual gap	0.152	0.102	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.254				
Vertical cylinder intake valve Left 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.152	0.229	Actual GAP values	0.152	0.077
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.002	2.827
	Current shim size	2.950	2.850	Estimated clearance with new shim installed	0.152	0.127
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.102
Actual shim used	2.950	2.800	New actual gap	0.152	0.102	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.254				
Vertical cylinder intake valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.064	0.076	Actual GAP values	0.064	0.012
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.06	2.83
	Current shim size	3.100	2.920	Estimated clearance with new shim installed	0.06	0.10
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.064	0.088
Actual shim used	3.100	2.830	New actual gap	0.064	0.088	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.064	0.152				



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<b>Metric to English</b>	<b>0.100</b>	<b>0.004</b>	inch
<b>English to Metric</b>	<b>0.004</b>	<b>0.102</b>	mm

		Intake Opener shim	Intake Closer shim
<b>Ducati rec</b>	Required for calculations Input recommended shim clearance (LT) <b>All clearances in mm</b>	0.100	0.100
opn.05mm-.18mm clsr.15mm-.25mm		Exhaust Opener shim	Exhaust Closer shim
opn.05mm-.23mm clsr.10mm-.20mm		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 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.127	0.152	Actual GAP values	0.127	0.025
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.03	2.97
	Current shim size	3.000	3.040	Estimated clearance with new shim installed	0.13	0.09
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.127	0.076
Actual shim used	3.000	2.970	New actual gap	0.127	0.076	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.127	0.203				
Horizontal cylinder intake valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.152	0.203	Actual GAP values	0.152	0.051
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	3.05	2.95
	Current shim size	3.000	3.000	Estimated clearance with new shim installed	0.15	0.10
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.077
Actual shim used	3.000	2.950	New actual gap	0.152	0.077	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.229				
Horizontal cylinder exhaust valve Left 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.152	0.229	Actual GAP values	0.152	0.077
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.802	3.097
	Current shim size	2.800	3.120	Estimated clearance with new shim installed	0.152	0.077
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.077
Actual shim used	2.800	3.120	New actual gap	0.152	0.077	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.229				
Horizontal cylinder exhaust valve Right 	<b>STEP 1</b>	Unloaded Gap	Loaded Gap	<b>Result of step 1</b>	Opener shim	Closer shim
	Measured gap values	0.152	0.229	Actual GAP values	0.152	0.077
	<b>STEP 2</b>	Opener shim	Closer shim	<b>Recommended shim</b>	2.86	3.08
	Current shim size	2.860	3.100	Estimated clearance with new shim installed	0.15	0.08
	<b>STEP 3</b>	Opener shim	Closer shim	<b>Result of step 4</b>	0.152	0.077
Actual shim used	2.860	3.100	New actual gap	0.152	0.077	
<b>STEP 4</b>	Unloaded Gap	Loaded Gap				
Measured gap values	0.152	0.229				