



SUZUKI GSX 1300R HAYABUSA • 1999-2009

SPRING KITS

1999-2009 • SPRING ONLY KIT

Spring Kit Part Number	Application	Description	Retainers	Keepers	Springs	Lower Collars
60-60560	Intake / Exhaust	.415" valve lift OK	USE O.E.M.	USE O.E.M.	60-60561 Chrome Silicon	USE O.E.M.

This "drop in" dual spring set uses super-clean chrome silicon wire and fits the stock retainers and bases on all '99-'09 models. It is the street/strip tuner's answer for high performance valve springs.

1999-2007 • LIGHTWEIGHT RACING VALVE SPRING KIT

Spring Kit Part Number	Application	Description	Retainers	Keepers	Springs	Lower Collars	Spring Shims
60-60015	Intake / Exhaust	.445" valve lift OK	60-60017 Titanium	USE O.E.M.	60-60016 Chrome Silicon	USE O.E.M.	60-60018

This high lift kit is designed for maximum performance applications on '99-'07 models, and includes lightweight titanium retainers as well as high lift, super-clean chrome silicon wire dual valve springs.

2008-'09 • LIGHTWEIGHT RACING VALVE SPRING KIT

Spring Kit Part Number	Application	Description	Retainers	Keepers	Springs	Lower Collars
60-60400	Intake / Exhaust	.445" valve lift OK	60-60401 Titanium	USE O.E.M.	60-60403 Chrome Silicon	60-60405 H.T. Steel

A dual spring high lift kit for the '08-'09 'Busa that includes super-clean chrome silicon wire dual valve springs, ultra light titanium retainers, and hardened steel lower collars. The ultimate setup for this model.

Kibblewhite Precision Machining Inc. has developed the most complete and well designed performance valve train system available for the Hayabusa. Featured in the World Record Holding Costella and Yacouci *Nebulous Theorem II* LSR streamliner, Kibblewhite valve train helped propel the Hayabusa powered liner to several land speed records.

KPMI performance valve spring kits are modeled using sophisticated cam profile and simulation softwares. Particular attention is paid to mass, RPM, harmonics and stress evaluations. Kits feature titanium retainers, heat treated, shot peened, stress relieved, super-clean, chrome silicon wire springs, and heat treated steel lower collars and shims where required.

Black Diamond one piece 'Busa intake valves are forged from a unique stainless steel alloy particularly suited for this application. This alloy is especially receptive to our proprietary face hardening process, and is designed to give long life in maximum performance, high RPM applications.

Busa exhaust valves are one piece forgings made from a special high performance exhaust steel. A track tested and proven high performance, heat resistant, high strength material, especially intended for use in high output exhaust applications.

All KPMI Black Diamond Valves® are designed by the KPMI engineering department using Pro/ENGINEER Wildfire Mechanica **Finite Element Analysis** "state of the art" software. Valve profiles are flow tested on our computer controlled flowbench to insure every bit of performance potential is extracted from our designs.

KPMI employs a stringent design process which is monitored by our lead engineer. The engineers, software, and process enable us to create valves that give peak performance and can withstand the torturous environment created in these high powered engines.



Nebulous Theorem II



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VALVES

BLACK DIAMOND® VALVES • BLACK NITRONEG STEMS

KPMI Part Number	Type	Head Diameter	Stem Diameter	Overall Length	Tulip	Remarks
60-60008	IN	33.00mm / 1.299"	0.1962"	3.740"	18°	Standard
60-60009	IN	34.00mm / 1.339"	0.1962"	3.750"	18°	Oversize
60-60010	EX	27.50mm / 1.083"	0.1953"	3.735"	17°	Standard
60-60011	EX	28.50mm / 1.122"	0.1953"	3.725"	17°	Oversize

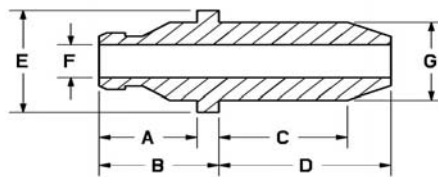
TENSILITE® VALVES • CHROMIUM NITRIDE PVD COATED

KPMI Part Number	Type	Head Diameter	Stem Diameter	Overall Length	Tulip	Remarks
60-60412T	IN	33.00mm / 1.299"	0.1962"	3.740"	18°	Standard
60-60413T	IN	34.00mm / 1.339"	0.1962"	3.750"	18°	Oversize
60-60416T	EX	27.50mm / 1.083"	0.1953"	3.735"	17°	Standard
60-60417T	EX	28.50mm / 1.122"	0.1953"	3.725"	17°	Oversize

GUIDES

C630 BRONZE / SAE 630

A	B	C	D	E	F	G	IN	EX	IN/EX
0.575"	0.600"	0.650"	0.860"	0.461"	0.1960"	0.4170"			60-60020
						+0.001"			60-60021
						+0.002"			60-60022
						+0.004"			60-60024
						+0.010"			60-60029



Kibblewhite valve guides are made from **C63000** copper/nickel/aluminum bronze. This is a tough, heat and wear resistant material. Guides are shortened to allow for high lift, and shaped to give maximum flow.

Professional builders know you should always install new tappets with a new cam. **KPMI Tappets** are manufactured using a proprietary process that creates a hard surface and a ductile center. This makes a light, tough part that is wear resistant without being brittle. Ideal for even hard faced aggressive racing cam profiles.

Valve Stem Seals are manufactured from 100% Viton®. Viton carries the highest temperature rating of any current valve stem seal material on the market.



STEM SEALS

KPMI Part Number	Qty.	Stem Diameter	Guide Diameter	Overall Length	Seal Outer Dia.	Material / Style
700-100015	1	5.00mm	0.325"	0.335"	0.405"	Solid Viton (O.E.M. Style)

TAPPETS

KPMI Part Number	Qty.	A	B	C	D	E	F
*60-60014 (Std. Dia.)	16	28.00mm / 1.1020"	1.038"	0.765"	0.075"	0.300"	0.098"
60-60035 (+.50mm)	1	28.50mm / 1.1220"	1.058"	0.765"	0.075"	0.300"	0.098"

