



2024



PERFORMANCE PARTS

VALVES | PISTONS | RODS | HEAD GASKETS | COMPONENTS



PASSION PERFORMANCE

MANUFACTURING



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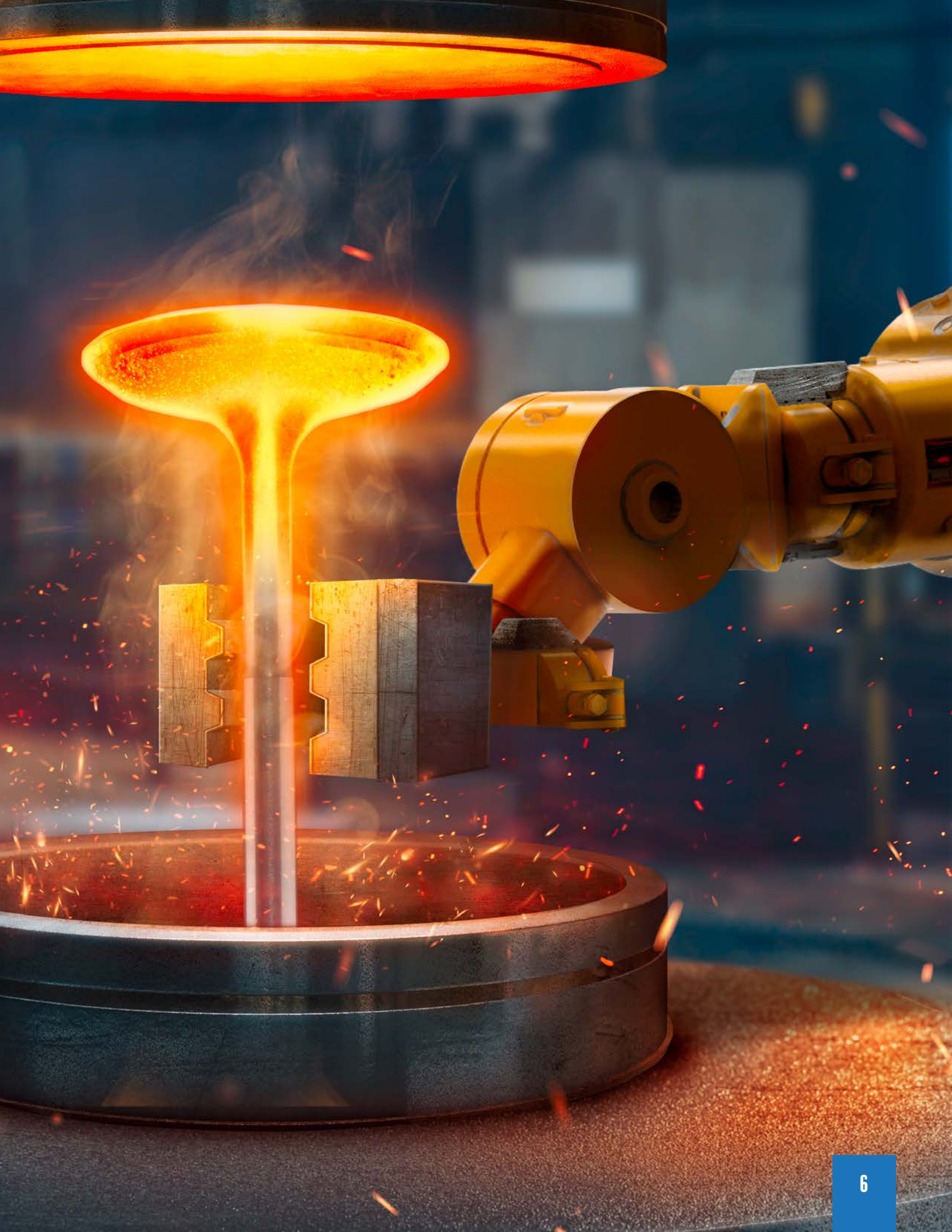
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RETURNS

ENGINEERED WITH PRECISION

Our performance valves are crafted starting with a singular piece forging. In this phase, the valve's head undergoes a meticulous two-step forging process to maintain optimal material grain flow. This forged piece is subsequently precision-machined using CNC technology in multiple stages, ensuring exact final dimensions.

We then subject the valve to another heat treatment to alleviate stress. Depending on its specific use, it receives a nitride hardening treatment or another coating process. In the final steps, the valve is ground once more and undergoes our exclusive Super-finishing process, guaranteeing each valve is impeccable, and dimensions are precise.



ENGINE VALVE MANUFACTURING

With more than three decades of expertise behind us, every Supertech Performance valve is a fusion of tradition and innovation. Utilizing state-of-the-art tools like ultrasonic assessments, x-rays, laser precision measurements, and advanced Finite Element Analysis (FEA), Supertech proudly offers some of the market's premier performance products.

Our dedication exceeds industry norms. By conducting thorough tests and partnering with top-tier engine builders, we continually enhance our offerings. All this drives Supertech's esteemed reputation for unmatched flow rates, durability, and excellence.



**MAGNETIC FRICTION
WELDED WAFER**

ONE PIECE FORGED VALVE

BLACK NITRIDE COATING

UNDERCUT STEM

BACK-CUT ANGLE

VALVE MATERIALS

We manufacture our racing valves using only the highest quality materials available. We have spent countless hours studying these different materials and your applications to create just the right valve. Because of thermal fatigue, the proper choice of material will greatly determine the valve's performance and reliability. Supertech relentlessly tests new materials to provide valves with unsurpassed fatigue resistance. Below, you will find a list of materials that we use in the production of our valves.



“WE MANUFACTURE OUR RACING VALVES USING ONLY THE HIGHEST QUALITY MATERIALS AVAILABLE.”



STAINLESS STEEL VALVES

Our intake valves are made exclusively from the highest grade of steel available – enhanced versions of EV8 (21-4N) – that has the strength to withstand just about any application.

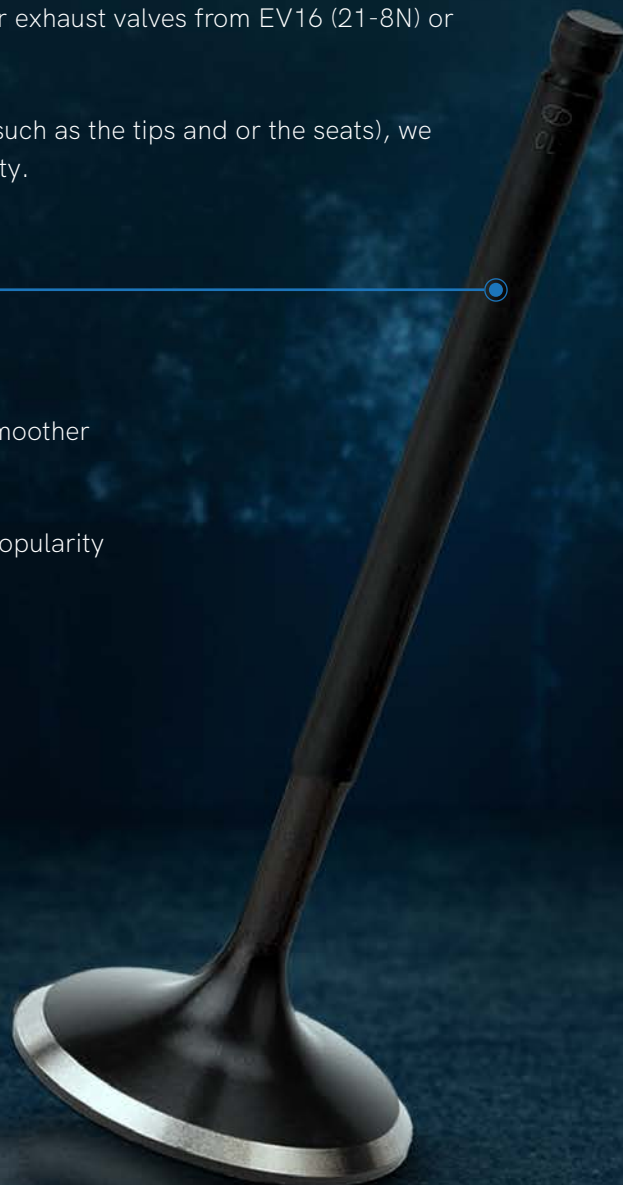
For greater strength at higher temperatures, we make our exhaust valves from EV16 (21-8N) or EV8-Nb/w.

For applications that require hardening in certain areas (such as the tips and or the seats), we weld hard metal alloys to the valve for increased durability.

BENEFITS OF BLACK NITRIDE

Black Nitride coated valves have harder surfaces and smoother finishes, providing less friction and a longer life.

This hardening treatment has been steadily growing in popularity over the last several years.



SODIUM FILLED VALVES

Supertech's sodium-filled valves, made of Inconel/Nimonic alloy, deliver a significant reduction in valve-head temperatures required for today's modern turbo engines.

A cooler valve improves the material strength and durability while allowing the tuner more flexibility and a wider range of spark timing advances. Combine that with an average weight reduction of 10%, and there isn't a cooler valve on the market.

INCONEL 751 / NIMONIC 80A



TITANIUM VALVES & COATINGS

For high RPM applications Supertech offers a ONE PIECE FORGED titanium valve, made from high temperature alloys such as Ti 6-2-4-2.

YELLOW TITANIUM NITRIDE - TIN

Decrease valve wear for high-performance applications with TIN. The entire valve (stem, tip, and valve seat) is thinly coated with yellow titanium nitride by Physical Vapor Deposition (PVD), creating a very hard, frictionless protective coating. This thin coating is much harder than Molybdenum coating (equivalent to 85Rc).

We have tested this coating with successful engine builders worldwide and have found it works very well with the Manganese Bronze valve guides for engines with bucket-type tappets, where there is no need for a welded or pressed tip, eliminating the risk of breakage.



CHROME NITRIDE - CRN

This silver colored coating similar to TIN, also applied by PVD, works better with factory steel guides.



TITANIUM VALVES & COATINGS

Our valve springs are computer-designed for long durability under extreme conditions.

There is more to the design and manufacturing of valve springs than achieving pressure and lift. Superior design makes a big difference in valve spring operation and your confidence that they will perform under any condition.

- Our valve springs are designed to ensure that wire stress levels do not surpass the limits of stress defined in the diagrams of fatigue.
- We use superior materials to manufacture valve springs. For most of our applications, we use wire made from Superclean Chrome Silicon Vanadium alloy. Vanadium increases the tensile strength and improves the life of the spring. High-stress spring applications often call for Chrome Silicon Vanadium Molybdenum+Ni to reach a higher tensile strength and achieve more durability for the application.
- We measure the natural harmonics of the springs to make sure they are away from the normal engine operation, and we confirm the inner and outer springs counter each other for good control of the valve train operation.
- We include a gas nitriding process before shot peening that helps improve the fatigue life of the spring.

BEEHIVE SPRINGS are also available for some applications. These springs offer a lower alternative mass and a lower variable natural frequency rate.



COMPUTER DESIGNED

EXTREME WIRE STRESS LEVELS

OPTIMIZED HARMONICS

COMPUTER DESIGNED

PERFORMANCE COMPONENTS

RETAINERS

Supertech offers CNC machined retainers from high strength and hardened aerospace certified titanium alloy. Designed to add strength while offering weight reduction, all of our titanium retainers are finished to precise tolerances.

For certain applications, we also offer retainers in high strength and hardness Aluminum alloy, as well as chrome molly steel.

These retainers work best when paired with our high quality valve springs.



VALVE GUIDES

Our valve guides are precision machined to exact tolerances from high quality Manganese Bronze material or Copper alloy. These guides in conjunction with our low friction black nitride valves provide an unsurpassed solution for high performance and sustained durability.

We also offer copper alloy for exhaust valve guides for high powered engines that require a higher thermal coefficient



LASH CAPS

Supertech intake valve seals are made from a high quality rubber compound, while our exhaust application features a special high temperature compound for improved durability.



VALVE SEALS

Supertech intake valve seals are made from a high quality rubber compound, while our exhaust application features a special hi temperature compound for improved durability.



BUCKET TYPE CAM FOLLOWERS

Supertech buckets are designed using the latest CATIA CAD software along with Finite Element Analysis (FEA) to ensure the utmost performance and durability under the most demanding racing conditions. Utilizing these methods to analyze the stresses associated with the off centered application of loads enables us to maximize the strength of our buckets while reducing weight.

Supertech ensures that each and every part is manufactured using only the highest quality materials, strict tolerances, and high quality coatings. The end result is an undeniable improvement in durability and performance that cannot be compared in any sense with less expensive, extruded, or factory supplied lifters.

- WPC treatment or DLC coatings are available upon request.



“SUPERTECH LIFTERS ARE REAL RACING LIFTERS, AND SHOULD BE THE ONLY CHOICE FOR YOUR RACING ENGINE.”

AEROSPACE CERTIFIED CHROME-MOLYBDENUM-VANADIUM

CNC MACHINED FROM HEAT TREATED BILLET

LIFTERS ARE NITRIDED AND POLISHED FOR DURABILITY

LOW SURFACE ROUGHNESS FOR LOWER FRICTION

PERFORMANCE PISTONS

Supertech has more than 40 Years of experience in the design and manufacturing of racing pistons. Utilizing the latest CAD software and Finite Element Analysis (FEA), Supertech combines experience and creativity to provide you with the best parts for your application.



MANUFACTURING

Our pistons are manufactured from extruded high silicon, enhanced 4032 alloy (with additional Cu, Ni & Mg) featuring low thermal expansion, excellent wear resistance, and higher thermal conductivity. Normally aspirated or high boost turbo pressure applications are available.

We use a 2 or 3 step forging process (depending on the application) which yields the finest structural grain orientating the fibers in the same direction as the stresses. This is done to insure greater stress resistance and improved durability. Additionally, we provide several heat treatments to the piston with a high tensile strength and evenly distributed hardness.

The pistons are then subjected to several machining steps by specially designed CNC machines. We use special diamond tools for dimensional precision, perpendicularity and to ensure flatness of the ring grooves. All Supertech pistons feature contact reduction grooves and hones & reamed pin bores for precise fit.

Wrist pins are constructed of cold extruded chrome molly steel for high strength.

PISTON SURFACE FINISH

Finally our "phosphate dry lubricant" coating is applied to protect the rings against "micro welding" and enhance lubrication on the skirt / cylinder area. Piston rings are manufactured in Japan with the latest technology for high performance applications.

PERFORMANCE HEAD GASKETS



PRECISION MANUFACTURED

The MLS Gaskets are laser cut to avoid formation of burrs, made in stainless steel, with an array of carefully designed gas stoppers embossments, stress relieved and uniformity coated with a series of polymer mixtures, for improved sealing properties under extreme conditions, and in less than perfect surface conditions on any type of block and cylinder head materials. The shape and stress relieving of the embossment is critical to avoid cracks

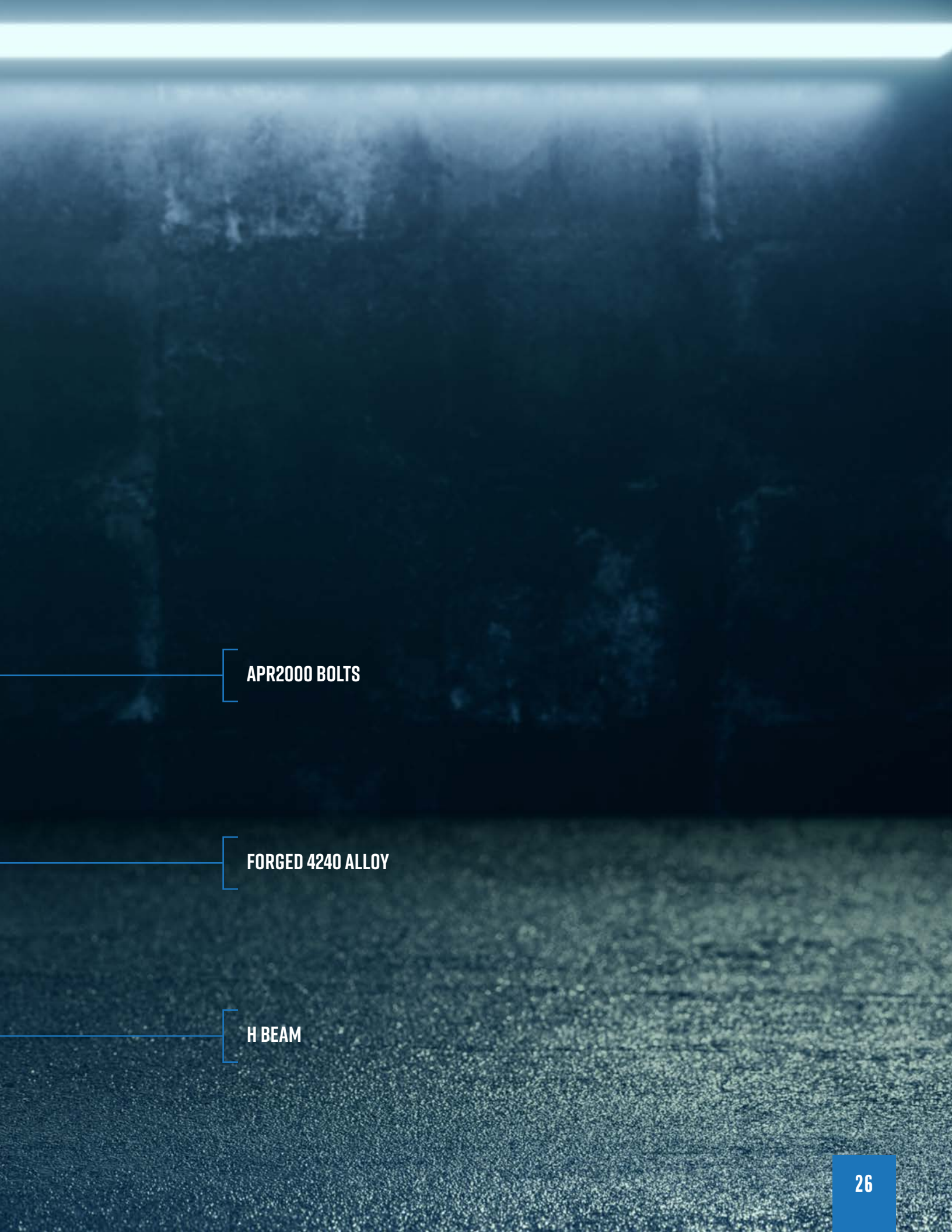
For certain high horse power applications a Fire Ring style gasket may be available depending on the application. It is made from steel core covered with a blend of fibers and NBR rubber as a binder and separated stainless steel ring (Cut-ring or Fire ring) (Does Not require machining) for best sealing around the cylinder bore. A Silicone base bead is also applied to critical areas to improve sealing around water and oil passages.

PERFORMANCE CONNECTING RODS

Our newly developed rods are manufactured from a high tensile strength 4340 alloy. Offering excellent wear and fatigue resistance in optimal conditions. All of our rods feature an H-beam design and come with ARP 2000 bolts capable of achieving a clamp load of 220,000 psi. Our rods are rated for 150hp/Cylinder. For more horsepower, we suggest upgrading to the APR625+ bolts capable of achieving 280,000 Psi and rated for 250hp/Cylinder.

All Rods are designed in house, using the latest cad and FEA software to ensure the highest quality rods on the market.





APR2000 BOLTS

FORGED 4240 ALLOY

H BEAM



BMW

S14 / S38

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1006L	Intake Valve	STD	37	6.98	123	SS /Black Nitride	Triple Groove
BMIVN-1008	Intake Valve	OS	38	6.98	121.4	SS /Black Nitride	Triple Groove
BMIVN-1009	Intake Valve	OS	38.50	6.98	121.4	SS /Black Nitride	Triple Groove
BMIVN-1009L	Intake Valve	OS	38.50	6.98	123.8	SS /Black Nitride	Triple Groove
BMIVN-1010	Intake Valve	OS	39	6.98	121.4	SS /Black Nitride	Triple Groove
BMIVN-1010L	Intake Valve	OS	39	6.98	123.8	SS /Black Nitride	Triple Groove
BMEVI-1006L	Exhaust Valve	STD	32	6.95	125	Inconel	Triple Groove
BMEVI-1010	Exhaust Valve	OS	33	6.95	123.7	Inconel	Triple Groove
BMEVN-1009	Exhaust Valve	OS	32.50	6.95	123.7	SS /Black Nitride	Triple Groove
BMEVN-1009L	Exhaust Valve	OS	33	6.95	126.1	SS /Black Nitride	Triple Groove
BMEVN-1010L	Exhaust Valve	OS	33	6.95	126.1	SS /Black Nitride	Triple Groove
BMEVN-1010	Exhaust Valve	OS	33	6.95	123.7	SS /Black Nitride	Triple Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1005D-S14, SPRK-H1005D-S38										
29.65	21.85	20.50	15.50	90lbs @35.50mm	205lbs @10mm	14.80	20.70	11.5	SPR-H1005	RET-BMS14/T1	SEAT-H1002/S14	
PART NUMBER:		SPRK-H1022D-S14, SPRK-H1022D-S38										
29.00	21.80	21.00	15.50	110lb@ 37.60mm	110lbs @ 37.60mm	15.60	22.00	11.2	SPR-H1022D	RET-H70/T1	SEAT-H1002/S14	
PART NUMBER:		SPRK-H1022D-S14-ST, SPRK-H1022D-S38-ST										
29.00	21.80	21.00	15.50	110lb@ 37.60mm	110lbs @ 37.60mm	15.60	22.00	11.2	SPR-H1022D	RET-H70/T1-ST	SEAT-H1002/S14	Steel Retainer

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-BMS14-7	Valve Guides	12.03	45	Intake and exhaust guide
GDE-BMS14-7-OS	Valve Guides	12.30	45	Oversized intake and exhaust guide

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES	
CF-37.5-3.1+	37.50	28	3.1	To be used with 8mm shims	To be used with Long valves
CF-37.5-5.65+	37.50	28	5.65	To be used with 8mm shims	To be used with Short valves
CF-37.5-3.1	37.50	28	3.1		To be used with Long valves and Lash caps
CF-37.5-4.5	37.50	28	4.5		To be used with Long valves and Lash caps
CF-38-3.1+	38.00	28	3.1	To be used with 8mm shims	Oversize diameter

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-T	Valve Locks	Triple Groove
VS-VW7I	Valve Seals	
VS-VW7E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-BMW-S14-95-2TC	Head Gaskets	95	1.2	Cooper Ring



BMW

M20 B25 / 2.5L / 12V

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1084	Intake Valve	STD	42	6.97	102.50	SS /Black Nitride	Triple Groove
BMIVN-1085	Intake Valve	OS	43	6.97	102.50	SS /Black Nitride	Triple Groove
BMEVN-1084	Exhaust Valves	STD	36	6.95	102.50	SS /Black Nitride	Triple Groove
BMEVI-1085	Exhaust Valves	OS	37	6.98	102.50	Inconel	Triple Groove

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-T	Valve Locks	Triple Groove

BMW

S42 / M42 / M50 / S50 / S52 / M52 / M54

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
BMIVN-1030	Intake Valve	STD	33	5.97	106.10	SS /Black Nitride	Triple Groove	
BMIVN-1030S	Intake Valve	STD	33	5.97	106.10	SS /Black Nitride	Single Groove	Single groove, to be used with KPR-6S/7 valve locks
BMIVN-1031S	Intake Valve	OS	34	5.97	106.10	SS /Black Nitride	Single Groove	Single groove, to be used with KPR-6S/7 valve locks
BMEVN-1030	Exhaust Valve	STD	30.5	5.96	105.65	SS /Black Nitride	Triple Groove	
BMEVN-1030S	Exhaust Valve	STD	30.5	5.96	105.65	SS /Black Nitride	Single Groove	Single groove, to be used with KPR-6S/7 valve locks
BMEVI-1030S	Exhaust Valve	STD	30.5	5.96	105.65	Inconel	Single Groove	Single groove, to be used with KPR-6S/7 valve locks
BMEVN-1031S	Exhaust Valve	OS	31.5	5.96	105.65	SS /Black Nitride	Single Groove	Single groove, to be used with KPR-6S/7 valve locks
BMEVI-1031S	Exhaust Valve	OS	31.5	5.96	105.65	Inconel	Single Groove	Single groove, to be used with KPR-6S/7 valve locks

SPRING KITS

OUTER SPRING		OUTER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER: SPRK-H100DR-BM, SPRK-H100DR-BM-16											
30.20	22.20	22.20	16.80	67lbs @35.70mm	192lbs @10mm	13.50	18.50	12.9	SPRK-H100DR-BM	RET-K20A2/T2	SEAT-BM50
PART NUMBER: SPRK-H1000D-BM, SPRK-H1000D-BM-16											
29.65	21.85	20.50	15.50	80lbs @35.70mm	195lbs @10mm	12.70	20.70	11.5	SPRK-H1000D-BM	RET-AUVE/T1	SEAT-BM60
PART NUMBER: SPRK-H1005D-BM, SPRK-H1005D-BM-16											
29.65	21.85	20.50	15.50	94lbs @35.70mm	209lbs @10mm	12.50	20.70	11.5	SPRK-H1005D-BM	RET-AUVE/T1	SEAT-BM60

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-BMW-M50-EI	Valve Guides	12.56	43.33	Use intake and exhaust

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-14.7LC	35	26	14.70	
CF-33-14	33	26	14	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW6-T	Valve Locks	Triple Groove
KPR-6S-7	Valve Locks	Single Groove
VS-VBM6I	Valve Seals	
VS-VBM6E	Valve Seals	



HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-BMW-M50-84.5-12T	Head Gaskets	84.5	2	Multilayer
HG-BMW-M50-85.5-12T	Head Gaskets	85.5	2	Multilayer
HG-BMW-M50-86-1.6T	Head Gaskets	86	2	Multilayer
HG-BMW-M50-86-2T	Head Gaskets	86	2	Multilayer
HG-BMW-M52-86-1.5T	Head Gaskets	86	1.5	Multilayer
HG-BMW-M52-87.6-1.5T	Head Gaskets	87.6	1.5	Multilayer

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-BMM52-H135	135	22	21.9	48	21.9	543

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-BM87-N12												
87	0.6	11:1	-12	36	31	89.6	Round	5.315	22	306	GNH8700	A/N
PART NUMBER: P6-BM87-N25												
87	0.6	8.5:1	-25	36	31	89.6	Round	5.315	22	306	GNH8700	T/N

BMW

S42 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVT-1060SM	Intake Valve	STD	35	4.98	110.6	Titanium	Triple Groove
BMEVT-1060SM	Exhaust Valve	STD	30.6	4.97	110.3	Titanium	Triple Groove

BMW

S50 B30 EURO

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1036	Intake Valve	STD	34	6.97	119.75	SS /Black Nitride	Triple Groove
BMEVI-1036	Exhaust Valve	STD	30.6	6.96	121.2	Inconel	Triple Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-H1005D-S50B30E								
29.65	21.85	20.50	15.50	90lbs @35.75mm	205lbs @10mm	14.80	20.70	11.50	SPR-H1005D	RET-BMS14-T1
PART NUMBER:		SPRK-H1022D-S50B30E								
29	21.80	21	15.50	105lbs @38mm	211lbs @10mm	16	22	11.2	SPR-H1022D	RET-H70/T1

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-37.5-6.5	37.50	26	6.5	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7T	Valve Locks	Triple Groove
VS-VW7I	Valve Seals	
VS-VW7E	Valve Seals	



BMW

S50 B32 EURO VERSION

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1037	Intake Valve	STD	35	5.97	119.75	SS /Black Nitride	Triple Groove
BMIVN-1033SL	Intake Valve	OS	35.65	5.97	121.30	SS /Black Nitride	Single Groove
BMEVN-1037	Exhaust Valve	STD	30.60	5.96	121.30	SS /Black Nitride	Triple Groove
BMEVI-1030PSL	Exhaust Valve	OS	31	5.96	122.80	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1000D-BM-B32E										
29.65	21.85	20.50	15.50	73lbs @36.3mm	189lbs @10mm	15.50	20.70	11.50	SPR-H1000D	RET-K20A2/T2	SEAT-BM80	
PART NUMBER:		SPRK-H1005D-BM-B32E										
29.65	21.85	20.5	15.50	85lbs @36.6mm	202lbs @10mm	16.20	20.70	11.5	SPR-H1005D	RET-K20A2/T2	SEAT-BM80	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW6T	Valve Locks	Triple Groove
KPR-6S-7	Valve Locks	Single Groove
VS-VBM6I	Valve Seals	
VS-VBM6E	Valve Seals	

BMW

S54 B32

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
BMIVN-1040	Intake Valve	STD	35	5.97	117.38	SS /Black Nitride	Triple Groove	
BMIVN-1040S	Intake Valve	STD	35	5.97	117.38	SS /Black Nitride	Single Groove	
BMIVN-1040S-LC	Intake Valve	STD	35	5.97	117.50	SS /Black Nitride	Single Groove	To be used with Lash cap
BMIVN-1045S	Intake Valve	OS	36	5.97	117.38	SS /Black Nitride	Single Groove	
BMEVN-1040	Exhaust Valve	STD	30.50	5.95	118.85	SS /Black Nitride	Triple Groove	
BMEVI-1040S	Exhaust Valve	STD	30.50	5.95	118.85	Inconel	Single Groove	
BMEVI-1040S-LC	Exhaust Valve	STD	30.50	5.95	119.10	Inconel	Single Groove	To be used with Lash caps
BMEVI-1045S	Exhaust Valve	OS	31.50	5.95	118.85	Inconel	Single Groove	

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-2521-2BM-T1									
26.4	19.3	19.3	14.5	82lbs @41mm	186lbs @10mm	14.5	24.50	10	SPR-2521/2	RET-BM2521/T1	SEAT-BMS54
PART NUMBER:		SPRK-HM1007BE-S54									
28.0	18.8	24.2	14.50	76lbs @39mm	204lbs @10mm	14.0	22.8	12.80	SPR-HM1007BE	RET-BM2521/T1-BE	SEAT-BMS54-BE
PART NUMBER:		SPRK-2521-2BM-T1-LC									
26.4	19.3	19.3	14.5	82lbs @41mm	186lbs @10mm	15.5	25.5	10	SPR-2521/2	RET-BM2521/T1S-LC	SEAT-BMS54

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-BMW-S54-EI	Valve Guides	12.04	48	Intake and Exhaust guide



COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW6T	Valve Locks	Triple Groove
KPR-6S-7	Valve Locks	Single Groove
VS-VBM6I	Valve Seals	
VS-VBM6E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-BMW-S54-87.5-1.2TC	Head Gaskets	87.5	1.2	Multilayer
HG-BMW-S54-88-1.2TC	Head Gaskets	88	1.2	Multilayer

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-BMS54-H39	139	21	19.9	53	19.9	532

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-BMS5487.5-CR12.5												
87.5	0.5	12.5:1	-6.6	33	32	91	Round	130.42	21	306	GNH8750	A/N

BMW

N53

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1054S-1	Intake Valve	STD	31.9	4.96	106.7	SS /Black Nitride	Triple Groove
BMEVI-1053S	Exhaust Valve	STD	29	5.95	114.9	Inconel	Triple Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-FE20N54-BE								
24.4	17.6	21	14.2	75lbs @36.5mm	155lbs @10mm	12	23.2	8	SPR-FE20BE	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)
PART NUMBER:		SPRK-FE20N54-BE-2								
24.4	17.6	21	14.2	88lbs @36.5mm	160lbs @10mm	12	23.2	7.25	SPR-FE20BE-2	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	Intake Locks (Single Groove)
KPR-6S-7	Valve Locks	Exhaust Locks (Single Groove)
VSI-BM50	Valve Seals	Intake Seals
VSI-BM60-E	Valve Seals	Exhaust Seals

BMW

N54 TURBO

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
BMIVN-1054S	Intake Valve	STD	31.40	4.96	106.7	SS /Black Nitride	Single Groove	Must use KPR-5.0/7S
BMIVN-1054S-1	Intake Valve	OS	31.9	4.96	106.7	SS /Black Nitride	Single Groove	Must use KPR-5.0/7S
BMEVI-1054S-HS	Exhaust Valve	STD	28	5.95	114.9	Sodium Filled Inconel	Single Groove	Must use KPR-6S/7
BMEVI-1054S-HS-1	Exhaust Valve	OS	28.50	5.95	114.9	Sodium Filled Inconel	Single Groove	Must use KPR-6S/7



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-FE20N54-BE								
24.4	17.6	21	14.2	75lbs @36.5mm	155lbs @10mm	12	23.2	8	SPR-FE20BE	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)
PART NUMBER:		SPRK-FE20N54-BE-2								
24.4	17.6	21	14.2	88lbs @36.5mm	160lbs @10mm	12	23.2	7.25	SPR-FE20BE-2	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	Intake Locks
KPR-6S-7	Valve Locks	Exhaust Locks
VSI-BM50	Valve Seals	Intake Seals
VSI-BM60-E	Valve Seals	Exhaust Seals

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-BMW-N54-86-1.5T	Head Gaskets	86	1.5	Copper Ring

BMW

N55 / S55 TURBO

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
BMIVN-1055S	Intake Valve	STD	32	4.97	104.9	SS /Black Nitride	Single Groove	Must use KPR-5.0/7S
BMEVI-1055S-HS	Exhaust Valve	STD	28	5.96	112.9	Sodium Filled Inconel	Single Groove	Must use KPR-6S/7

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-FE20N54-BE								
24.4	17.6	21	14.2	75lbs @36.5mm	155lbs @10mm	12	23.2	8	SPR-FE20BE	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)
PART NUMBER:		SPRK-FE20N54-BE-2								
24.4	17.6	21	14.2	88lbs @36.5mm	160lbs @10mm	12	23.2	7.25	SPR-FE20BE-2	RET-BMN54-TI (5mm) / RET-BMN54-TE (6mm)

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	
KPR-6S-7	Valve Locks	
VSI-BM50	Valve Seals	
VSI-BM60-E	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-BMN55-H144.35	144.35	22	20.88	53.6	20.88	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMES DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	RING PART #	APPLICATION	NOTES
PART NUMBER: P6-BMN55-84-T												
84	STD	10.2:1	-10.4	37	32.4	89.6	X	141.35	22	GNH-8400	T/A	2618 Alloy



BMW

S63

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
BMIVN-1063S	Intake Valve	STD	33.15	5.96	93.7	SS / Black Nitride	Single Groove	
BMEVI-1063S-HS	Exhaust Valve	STD	29	5.94	106	Sodium Filled Inconel	Single Groove	

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-BMS63B (Exhaust)								
24.4	17.6	21	14.2	84lbs @35.7mm	165lbs @10mm	11.2	23	8.2	SPR-BMS63B	RET-BMN54-TE + VSI-EC60-E
PART NUMBER:		SPRK-BMS63B (Intake)								
24.4	17.6	21	14.2	82lbs @36mm	162lbs @10mm	11.5	23	8.2	SPR-BMS63B	RET-BMN54-TE + VSI-EC60-E

BMW

S65 / S85

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
BMIVN-1065	Intake Valve	STD	35.4	4.97	111.75	SS /Black Nitride	Single Groove
BMEVI-1065	Exhaust Valve	STD	30.5	4.95	110.2	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-BM65-BE-1								
26.5	18.7	21.6	13.8	77lbs @40.10mm	180lbs @10mm	12.2	27	10.3	SPR-BMS65-BE1	RET-BMS65-BE1

BMW

B38 / B48 / B58

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MCIVN-1400S	Intake Valve	STD	30.10	4.96	99.50	SS /Black Nitride	Single Groove
MCEVI-1400S-HS	Exhaust Valve	STD	28.55	5.95	100.1	Sodium Filled Inconel	Single Groove

SPRING KITS

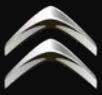
OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-MCB38 / SPRK-MCB48 / SPRK-MCB58									
24.4	17.6	21	14.2	75lbs @37mm	155lbs @10mm	12.2	23.2	8	SPR-FE20BE	RET-BMB48/TE + RET-BMB48/TI	SEAT-BM48/T1
PART NUMBER:		SPRK-MCB38-2 / SPRK-MCB48-2 / SPRK-MCB58-2									
24.4	17.6	21	14.2	86lbs @37mm	172lbs @10mm	12.2	23.2	7	SPR-FE20BE-2	RET-BMB48/TE + RET-BMB48/TI	SEAT-BM48/T1

COMPONENTS

PART NUMBER	NAME	NOTES
GDE-BMB48-I	Valve Guides	
GDE-BMB48-E6	Valve Guides	
VSI-BM50-I	Valve Seals	
VSI-BM60-E	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-BMB58-I-148.30	148.30	22	21 Tapered	53.6	23.90	
CR-MINB48-H148.3	148.30	22	21 Tapered	53.6	23.90	



Citroen

THP150 / 175

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MCIVN-1200S	Intake Valve	STD	28.8	4.96	105.8	SS /Black Nitride	Single Groove
MCIVN-1201S	Intake Valve	OS	29.8	4.96	105.8	SS /Black Nitride	Single Groove
MCEVI-1200-HS	Exhaust Valve	STD	26.2	4.95	110.15	Sodium filled Inconel	Single Groove
MCEVI-1202-HS	Exhaust Valve	OS	27	4.95	110.15	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MC56BE										
23.5	16.5	19.3	12.3	70lbs @33.6mm	163lbs @10mm	11.4	22.2	9.7	SPR-MC56BE	RET-MC56/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MIN-R56-STD	Valve Guides	9.022	44.9	
GDE-MIN-R56-OS	Valve Guides	9.06	44.9	Oversized

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	
KPR-5.0-7S-32	Valve Locks	
VSI-MIN-R56	Valve Seals	
VSI-MIN-R56-16	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MCR56-78-0.9T	Head Gaskets	78.5	0.9	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MIN56-H138.54	138.54	20	20	48	20.88	472

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (IN)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MIN56-N14-77-CR10.5													
77	STD	10.5	STD	37.6	28.7	85.8	X	5.454"	20	4032	262	GBH7700	T/N
PART NUMBER: P4-MIN56-N14-77.5-CR10.5													
77.5	0.5	10.5	STD	37.6	28.7	85.8	X	5.454"	20	4032	262	GNH7750	T/N



Ferrari

250 / 275

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVN-380897	Intake Valve	STD	38	7.98	97	SS /Black Nitride	Single Groove
FEEVN-325895	Exhaust Valve	STD	32.50	7.98	95.20	SS /Black Nitride	Single Groove

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-FE275	Valve Guides			

Ferrari

330 V12 / 24V

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVC-330-209	Intake Valve	STD	42	7.98	98.10	Chrome	Single Groove
FEEVC-330-209	Exhaust Valve	STD	37.40	7.97	98.10	Chrome	Single Groove

Ferrari

328 V8

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVN-328-T	Intake Valve	STD	28.90	6.97	101.30	SS /Black Nitride	Single Groove
FEEVI-328-T	Exhaust Valve	STD	25.90	6.97	103.6	Inconel-Nimonic	Single Groove

Ferrari

TESTAROSSA

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVN-2870	Intake Valve	STD	28.5	6.97	108.40	Chrome Coating	Single Groove
FEEVI-2570	Exhaust Valve	STD	25.5	6.96	109.70	Inconel	Single Groove

Ferrari

355 / 360

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVN-2500	Intake Valve	STD	26.5	5.96	98.3	SS /Black Nitride	Single Groove
FEEVN-2500	Exhaust Valve	STD	28.5	5.96	100.40	SS /Black Nitride	Single Groove

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-FIA 2500	Valve Guides			

Ferrari

F136

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FEIVC-F136	Intake Valve	STD	37.8	5.97	97.85	Chrome	Single Groove
FEEVC-F136	Exhaust Valve	STD	31	5.96	97.70	Chrome	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-TS1015-F136												
27.5	20.0	20.0	15.2	72lbs @34.7mm	193lbs @10mm	13.5	20.7	12.1	SPR-TS1015-F136	RET-NRB60/TS-2		

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-16.7-LC				To be use with Lash Caps (7mm) installed on the CF inner post.



Ford

ZETEC DOHC / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-1035	Intake Valve	STD	32	6.035	97.10	SS /Black Nitride	Single Groove
FIVN-1037	Intake Valve	OS	33	6.035	97.10	SS /Black Nitride	Single Groove
FIVN-1038	Intake Valve	OS	34	6.035	97.10	SS /Black Nitride	Single Groove
FEVN-1035	Exhaust Valve	STD	28	6.012	96.70	SS /Black Nitride	Single Groove
FEVN-1037	Exhaust Valve	OS	29	6.012	96.70	SS /Black Nitride	Single Groove
FEVI-1038	Exhaust Valve	OS	30	6.012	96.70	Inconel-Nimonic	Single Groove

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6FZ-7	Valve Locks	Intake Locks

Ford

DURATEC / 2.0L / 2.3L / 2.5L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MAIVN-2301D	Intake Valve	STD	35	5.48	103.40	SS /Black Nitride	Single Groove
MAIVN-2301F	Intake Valve	STD	35	5.48	103.40	SS /Black Nitride	Single Groove
MAIVN-2304D	Intake Valve	OS	36	5.48	103.40	SS /Black Nitride	Single Groove
MAIVN-2304F	Intake Valve	OS	36	5.48	103.40	SS /Black Nitride	Single Groove
MAIVN-2306	Intake Valve	OS	36.75	5.48	103.40	SS /Black Nitride	Single Groove
MAIVN-2308D	Intake Valve	OS	37.50	5.48	103.40	SS /Black Nitride	Single Groove
MAEVN-2301D	Exhaust Valve	STD	30	5.48	103.40	SS /Black Nitride	Single Groove
FEVI-2501F-HS	Exhaust Valve	STD	30	5.48	103.40	Sodium Filled Inconel	Single Groove
MAEVN-2301F	Exhaust Valve	STD	30	5.48	103.40	SS /Black Nitride	Single Groove
MAEVI-2301D	Exhaust Valve	STD	30	5.48	103.40	Inconel-Nimonic	Single Groove
MAEVN-2304F	Exhaust Valve	OS	31	5.48	103.40	SS /Black Nitride	Single Groove
MAEVI-2304D	Exhaust Valve	OS	31	5.48	103.40	Inconel-Nimonic	Single Groove
MAEVI-2304	Exhaust Valve	OS	31	5.48	103.40	Inconel-Nimonic	Single Groove
MAEVI-2306	Exhaust Valve	OS	32	5.48	103.40	Inconel-Nimonic	Single Groove
MAEVI-2304-6MM-HS	Exhaust Valve	OS	31	5.95	105.9	Sodium Filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS-DUR-DS									
27.5	20			55lbs @35mm	150lbs @10mm	14.30	20.7	9.6	SPR-TS1015	RET-TS5.5/T1	SEAT-DUR1
PART NUMBER:		SPRK-TS-DUR-D2									
27.5	20	20	15.2	70lbs @36.2mm	190lbs @10mm	13	20.7	12.1	SPR-TS1015	RET-TS5.5/T1	SEAT-DUR2
PART NUMBER:		SPRK-TS-DUR-D1									
27.5	20	20	15.2	83lbs @35mm	208lbs @10mm	12.50	20.7	12.1	SPR-TS1015	RET-TS5.5/T1	SEAT-DUR1
PART NUMBER:		SPRK-FE20BE (Conical)									
24.3	17.5	21.2	14.4	67lbs @37.9mm	144lbs @10mm	12.8	23.20	7.70	SPR-FE20BE	OEM	OEM
PART NUMBER:		SPRK-FE20BE -2 (Conical)									
24	17.20	21	14.2	78lbs @37.9mm	164lbs @10mm	12	23.0	8.6	SPRK-FE20BE	RET-TS5.5/T1	SEAT-DUR1
PART NUMBER:		SPRK-TS-DUR-BE0									
27.7	19.7	23.2	15.2	60lbs @35.5mm	164lbs @10mm	13	21.8	10.4	SPR-TS1012-BE	RET-TS5.5/T1F-BE	SEAT-DUR1
PART NUMBER:		SPRK-TS-DUR-BE1									
27.7	19.7	23.2	15.2	70lbs @35.5mm	197lbs @10mm	12.5	21.8	12.7	SPR-TS1015-BE	RET-TS5.5/T1F-BE	SEAT-DUR0
PART NUMBER:		SPRK-TS-DUR-BE2									
27.7	19.7	23.2	15.2	82lbs @34.5mm	209lbs @10mm	11.75	21.8	12.7	SPR-TS1015-BE	RET-TS5.5/EX-BE	SEAT-DUR1

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-DUR16	Valve Guides	11.05	39	



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45 - 3.50mm	
CF-31-2.5+-8	31	25.5	2.50mm + Shim 1.45 - 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-D5.5E	Valve Seals	Intake Valve Seals
VSI-D5.5E	Valve Seals	Exhaust Valve Seals
KPR-5.5/7A-ST	Valve Keepers	OEM Will work too

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-FDUR23-89-075T	Head Gaskets	89	0.75	MLS
HG-FDUR23-89-1T	Head Gaskets	89	1	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FDUR20-H146.26	146.25	21	18.9	50.3	21.8	541.8
CR-FDUR23-H154.8	154.8	21	18.9	53.02	21.82	552.9

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOVE DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
DURATEC 2.0L												
PART NUMBER: P4-DU875-N6												
87.5	STD	9.7:1	-6	42	28.5	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-N2												
87.5	STD	10.4:1	-2	42	28.5	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-P1												
87.5	STD	11.2:1	1.5	42	28.5	83.1	X	154.78	21	303	GNH8750	A/N
PART NUMBER: P4-DU875-P7												
87.5	STD	12.2:1	6.1	42	28.5	83.1	X	154.78	21	295	GNH8750	A/N
PART NUMBER: P4-DU875-N20												
87.5	STD	8:1	-20	42	28.5	83.1	X	154.78	21	277	GNH8750	T/N
PART NUMBER: P4-DU88-N20												
88	0.5	8.1:1	-20	42	28.5	83.1	X	154.78	21	283	GNH8800	T/N
PART NUMBER: P4-DU88-N6												
88	0.5	9.8:1	-6	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU88-N2												
88	0.5	10.5:1	-2	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU88-P1												
88	0.5	11.3:1	1	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU88-P7												
88	0.5	12.4:1	6.1	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU8850-N7												
88.5	1	9.8:1	-7	42	28.5	83.1	X	154.78	21	283	GNH8850	T/N
PART NUMBER: P4-DU8850-P1												
88.5	1	11.3:1	1	42	28.5	83.1	R	154.78	21	283	GNH8850	A/N
PART NUMBER: P4-DU89-N20												
89	1.5	8.2:1	-20	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N
PART NUMBER: P4-DU89-N7												
89	1.5	9.8:1	-7	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N
PART NUMBER: P4-DU89-P1												
89.5	2	11.5:1	0.5	42	28.5	83.1	R	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N20												
89.5	2	8.3:1	-20	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N7												
89.5	2	9.9:1	-7	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-DU90-N2												
90	2.5	10.8	-2	42	28.5	83.1	X	154.78	21	330	GNH9000	A/N
PART NUMBER: P4-DU900-N2Z												
90	2.5	12.6:1	-2	42	27	97	X	154.78	21	309	GNH9000	A/N
PART NUMBER: P4-DU91-N2												
91	3.5	11:1	-2	42	28.5	83.1	X	154.78	21	324	GNH9100	A/N
DURATEC 2.3L												
PART NUMBER: P4-DU875-N6												
87.50	Std	10.9:1	-6	42	28.50	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-N2												
87.50	Std	11.6:1	-2	42	28.50	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-P1												
87.50	Std	12.5:1	1.5	42	28.50	83.1	X	154.78	21	303	GNH8750	A/N
PART NUMBER: P4-DU875-P7												
87.50	Std	13.6:1	6.1	42	28.50	83.1	X	154.78	21	295	GNH8750	A/N
PART NUMBER: P4-DU875-N20												
87.50	Std	9:1	-20	42	28.50	83.1	X	154.78	21	277	GNH8750	T/N
PART NUMBER: P4-DU880-N20												
88	0.5	9.1:1	-20	42	28.50	83.1	X	154.78	21	283	GNH8800	T/N
PART NUMBER: P4-DU880-N6												
88	0.5	11:1	-6	42	28.50	83.1	X	154.78	21	303	GNH8800	A/N
PART NUMBER: P4-DU880-N2												
88	0.5	11.6:1	-6	42	28.50	83.1	X	154.78	21	303	GNH8800	A/N
PART NUMBER: P4-DU88-P1												
88	0.5	12.5:1	1	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU88-P7												
88	0.5	13.7:1	6.1	42	28.5	83.1	X	154.78	21	283	GNH8800	A/N
PART NUMBER: P4-DU8850-N7												
88.5	1	11:1	-7	42	28.5	83.1	X	154.78	21	283	GNH8850	T/N
PART NUMBER: P4-DU8850-P1												
88.5	1	12.5:1	1	42	28.5	83.1	R	154.78	21	283	GNH8850	A/N
PART NUMBER: P4-DU89-N20												
89	1.5	9.2	-20	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N
PART NUMBER: P4-DU89-N7												
89	1.5	11	-7	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-DU89-P1												
89.5	2	12.8	0.5	42	28.5	83.1	R	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N20												
89.5	2	9.3	-20	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N7												
89.5	2	11.1	-7	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU90-N2												
90	2.5	12.2	-2	42	28.5	83.1	X	154.78	21	330	GNH9000	A/N
PART NUMBER: P4-DU900-N2Z												
90	2.5	12:6:1	-2	42	27	97	X	154.78	21	309	GNH9000	A/N
PART NUMBER: P4-DU91-N2												
91	3.5	12.3	-2	42	28.5	83.1	X	154.78	21	324	GNH9100	A/N
DURATEC 2.5L												
PART NUMBER: P4-DU89-N20												
89	1.5	9.7	-20	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N
PART NUMBER: P4-DU89-N7												
89	1.5	11.7	-7	42	28.5	83.1	X	154.78	21	283	GNH8900	A/N
PART NUMBER: P4-DU89-P1												
89.5	2	13.3	0.5	42	28.5	83.1	R	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N20												
89.5	2	9.8	-20	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU8950-N7												
89.5	2	11.8	-7	42	28.5	83.1	X	154.78	21	283	GNH8950	A/N
PART NUMBER: P4-DU90-N2												
90	2.5	13	-2	42	28.5	83.1	X	154.78	21	330	GNH9000	A/N
PART NUMBER: P4-DU900-N2Z												
90	2.5	12:6:1	-2	42	27	97	X	154.78	21	309	GNH9000	A/N
PART NUMBER: P4-DU91-N2												
91	3.5	13.1	-2	42	28.5	83.1	X	154.78	21	324	GNH9000	A/N



Ford

DURATEC / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-1050T	Intake Valve	STD	35	5.98	114.5	SS /Black Nitride	Single Groove
FEVI-1050T	Exhaust Valve	STD	30	5.97	115.45	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-FXR6-BE1										
26.5	19.5	23.6	16.5	77lbs @40mm	160lbs@10mm	12	23	8.1	SPR-FXR6-BE1	OEM	OEM	
PART NUMBER:		SPRK-FXR6-BE2										
26.5	19.5	23.6	16.5	84lbs @40mm	181lbs @10mm	13.3	25	8.5	SPR-FXR6-BE2	OEM	OEM	
PART NUMBER:		SPRK-FCO-BE1										
25	17.65	20.3	13.25	89lbs @40.5mm	240lbs@10mm	13.2	25	9.5	SPR-FCO-BE1	RET-FCO-BE	OEM	
PART NUMBER:		SPRK-FCO-BE2										
26	17.8	21.25	13.25	115lbs @40.5mm	240lbs @10mm	13.2	25.3	12.5	SPR-FCO-BE2	RET-FCO-BE	OEM	

Ford

ECOBOOST DI / 1.5L / 1.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-2401D	Intake Valve	STD	30.1	4.96	98.8	SS /Black Nitride	Single Groove
FEVI-2401F-HS	Exhaust Valve	STD	24.9	4.95	99.65	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-FE56BE								
23.3	16.8	18.8	12.3	57lbs @34.4mm	155lbs @10mm	12.2	22.2	9.8	SPR-FE56BE	RET-MC56/T1

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)
CF-28-2.9+-8	28	20	3mm + Shim 1.45 -3.50mm

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Keepers	

Ford

ECOBOOST DI / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-2501D	Intake Valve	STD	32.5	5.47	103.3	SS /Black Nitride	Single Groove
FEVI-2500F-HS	Exhaust Valve	STD	28	5.45	104.6	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-FE20BE										
24	17.2	21	14.2	72lbs @37.2mm	150lbs @10mm	12	23	7.8	SPR-FE20BE	OEM Re-tainer	OEM Seat	
PART NUMBER:		SPR-FE20BE -2										
24	17.2	21	14.2	83lbs @37.2mm	150lbs @10mm	12	23	7.25	SPR-FE20BE	OEM Re-tainer	OEM Seat	
PART NUMBER:		SPRK-TS1012-FE2										
27.5	20	20	15.2	77lbs @34.3mm	173lbs @10mm	13	20	9.6	SPR-TS1012	RET-TS55-T1	SEAT-DUR1	OEM Seal
PART NUMBER:		SPRK-TS1015-FE2										
27.5	20	20	15.2	84lbs @34.3mm	205lbs @10mm	13	20.7	12.10	SPR-TS1015	RET-TS55-T1	SEAT-DUR1	OEM Seal



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45- 3.50mm

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-FECO20-89-12T	Head Gaskets	89	1.2	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FECO20-H155.9	155.87	22.5	21.82	55.03	21.82	552

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOVE DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-FECO20-875-N7H13												
87.5	STD	9.3:1	-7	53	32.75	83.1	X	155.9	22.5	364	GNH-8750	T/N
PART NUMBER: P4-FECO20-88-N7H13												
88	0.5	9.3:2	-7	53	32.75	83.1	X	155.9	22.5	368	GNH-8800	T/N

Ford

ECOBOOST DI / 2.3L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-2501D	Intake Valve	STD	32.5	5.47	103.3	SS /Black Nitride	Single Groove
FIVN-2502D	Intake Valve	OS	33.5	5.47	103.3	SS /Black Nitride	Single Groove
FEVI-2501F-HS-8	Exhaust Valve	STD	30	5.45	104.7	Sodium filled Inconel	Single Groove
FEVI-2502F-HS	Exhaust Valve	OS	31	5.45	104.7	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-FE20BE										
24	17.2	21	14.2	72lbs @37.2mm	150lbs @10mm	12	23	7.8	SPR-FE20BE	OEM Re-tainer	OEM Seat	
PART NUMBER:		SPRK-FE20BE -2										
24	17.2	21	14.2	83lbs @37.2mm	150lbs @10mm	12	23	7.25	SPR-FE20BE	OEM Re-tainer	OEM Seat	
PART NUMBER:		SPRK-TS1012-FE2										
27.5	20	20	15.2	77lbs @34.3mm	173lbs @10mm	13	20	9.6	SPR-TS1012	RET-TS55-T1	SEAT-DUR1	OEM Seal
PART NUMBER:		SPRK-TS1015-FE2										
27.5	20	20	15.2	84lbs @34.3mm	205lbs @10mm	13	20.7	12.10	SPR-TS1015	RET-TS55-T1	SEAT-DUR1	OEM Seal

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45- 3.50mm

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
VSI-FECO-I	Valve Seals	
VSI-FECO-E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-FECO23-1.3T	Head Gaskets	89	1.3	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FECO23-H149.3	149.3	22.5	21.82	55.03	21.82	533.8



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-FECO23-875-N6H13												
87.5	STD	9.5:1	-6.3	53	32.75	94	X	149.3	22.5	360	GNH8750	T/N
PART NUMBER: P4-FECO23-88-N6H3												
88	0.5	9.5:2	-6.3	53	32.75	94	X	149.3	22.5	366	GNH8800	T/N

Ford

ECOBOOST 6CYL (TWIN TURBO) / 3.5L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-3501D	Intake Valve	STD	36.9	5.47	97.7	SS /Black Nitride	Single Groove
FEVI-3501F-HS	Exhaust Valve	STD	31	5.46	95.3	Sodium Filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-FE20BE-3.5												
24	17.2	21	14.2	72lbs @37.2mm	150lbs @10mm	12	23	7.7	SPR-FE20BE	OEM RETAINER	OEM SEAT	
PART NUMBER: SPRK-FE20BE-2-3.5												
24	17.2	21	14.2	83lbs @37.2mm	155lbs @10mm	12	23	7.25	SPR-FE20BE-2	OEM RETAINER	OEM SEAT	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-3.10	32	24.5	3.10	
CF-32-3.25	32	24.5	3.25	
CF-32-3.35	32	24.5	3.35	
CF-32-3.55	32	24.5	3.55	
CF-32-3.70	32	24.5	3.70	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	

Ford

COYOTE / 5.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FIVN-5020T	Intake Valve	STD	37.3	5.98	119.9	SS /Black Nitride	Triple Groove
FIVN-5022T	Intake Valve	OS	38	5.98	119.9	SS /Black Nitride	Triple Groove
FIVC-5024S	Intake Valve	OS	39	5.98	119.9	Chrome	Single Groove
FEVN-5021T	Exhaust Valve	STD	32	5.95	108.6	SS /Black Nitride	Triple Groove
FEVI-5024S	Exhaust Valve	OS	33	5.95	108.6	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-FCO-BE								
25.1	17.6	20.6	13.1	91lbs @40mm	189lbs @10mm	13.2	25	9.8	SPR-FCO-BE	RET-FCO-BE
PART NUMBER:		SPRK-FCO-BE-2								
26.2	18	21.3	13.1	122lbs @40mm	250lbs @10mm	13.2	25.3	12.8	SPR-FCO-BE2	RET-FCO-BE

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-FCO50	Valve Guides	11.55	43.6	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-FCO5V	Valve Seals	
VSI-FCO5V-24	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-FC50-95.4-1TL	Head Gaskets	95.4	1	MLS
HG-FC50-95.4-1TR	Head Gaskets	95.4	1	MLS



Ford

BARRA

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
FFIVN-1050T	Intake Valve	STD	35	5.98	122.85	SS /Black Nitride	Triple Groove
FFIVN-1050S	Intake Valve	STD	35	5.98	122.85	SS /Black Nitride	Single Groove
FFIVN-1051T	Intake Valve	OS	35.5	5.98	122.85	SS /Black Nitride	Triple Groove
FFIVN-1052S	Intake Valve	OS	36	5.98	122.85	SS /Black Nitride	Single Groove
FFEVN-1050T	Exhaust Valve	STD	32	5.97	105.8	SS /Black Nitride	Triple Groove
FFEVN-1050S	Exhaust Valve	STD	32	5.97	105.8	SS /Black Nitride	Single Groove
FFEVI-1052S	Exhaust Valve	OS	33	5.97	105.8	Inconel-Nimonic	Single Groove
FFEVI-1054S	Exhaust Valve	OS	34	5.97	105.8	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-FXR6-BE1										
26.4	19.50	23.6	16	83lbs @39.3mm	167lbs @11mm	11.4	23	8	SPR-FXR6-BE1	RET-FXR6-T1	OEM SEAT	
PART NUMBER:		SPRK-FXR6-BE2										
26.4	19.5	23.6	16	90lbs @39.3mm	206lbs @13.1mm	13.1	25	8.5	SPR-FXR6-BE2	RET-FXR6-T1	OEM SEAT	

GM

ECOTEC LSJ / 2.0 / 2.2 / 2.4

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-0010	Intake Valve	STD	35.1	5.97	102.05	SS /Black Nitride	Triple Groove
GIVN-0012S	Intake Valve	OS	35.6	5.97	102.05	SS /Black Nitride	Single Groove
GEVN-0010	Exhaust Valve	STD	30.1	5.96	101.3	SS /Black Nitride	Triple Groove
GEVI-0012S	Exhaust Valve	OS	30.6	5.96	101.3	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1012-EC										
27.5	20	20	15.2	75lbs @33.9mm	193lbs@ 12.5mm	13	20	9.6	SPR-TS1012	RET-TS5.5/T1F	SEAT-EC1015	
PART NUMBER:		SPRK-TS1015-EC										
27.5	20	20	15.2	85lbs @12.5mm	236lbs @12.5mm	13	20	12.1	SPR-TS1015	RET-TS5.5/T1F	SEAT-EC1015	
PART NUMBER:		SPRK-EC3025D										
26.6	19.6	19.4	14.2	76lbs @34.6mm	217lbs@ 12.5mm	15.6	19	11.3	SPR-EC3025D	RET-EC3020/T1	SEAT-EC3020	
PART NUMBER:		SPRK-EC3027D										
26.6	19.6	19.6	14.2	94lbs @34.6mm	232lbs @12.5mm	13.9	20.7	11.1	SPR-EC3027D	RET-EC3020/T1	SEAT-EC3020	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-EC60-SM	Valve Guides			

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Valve Locks	
VS-T6SM	Valve Seals	



GM

VORTEC / 4 / 5 / 6 CYL

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-3920S	Intake Valve	OS	39	5.97	105.3	SS /Black Nitride	Triple Groove
GEVI-3435S	Exhaust Valve	STD	34	5.96	107.9	Inconel	Single Groove

Honda

S2000 / F20C / F22C

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1030D	Intake Valve	STD	36	5.48	109.85	SS /Black Nitride	Single Groove
HIVN-1030F	Intake Valve	STD	36	5.48	109.85	SS /Black Nitride	Single Groove
HIVN-1033D	Intake Valve	OS	36.5	5.48	109.85	SS /Black Nitride	Single Groove
HIVN-1033F	Intake Valve	OS	36.5	5.48	109.85	SS /Black Nitride	Single Groove
HIVN-1035D	Intake Valve	OS	37	5.48	109.85	SS /Black Nitride	Single Groove
HEVN-1030D	Exhaust Valve	STD	31	5.45	108.8	SS /Black Nitride	Single Groove
HEVN-1030F	Exhaust Valve	STD	31	5.45	108.8	SS /Black Nitride	Single Groove
HEVI-1030D	Exhaust Valve	STD	31	5.45	108.8	Inconel-Nimonic	Single Groove
HEVN-1033F	Exhaust Valve	OS	31.5	5.45	108.8	SS /Black Nitride	Single Groove
HEVI-1033D	Exhaust Valve	OS	31.5	5.45	108.8	Inconel-Nimonic	Single Groove
HEVI-1035D	Exhaust Valve	OS	32	5.45	108.8	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1019D										
30	21.80	21.30	15.60	97lbs @40.4mm	275lbs @12mm	16	22.70	14.8	SPR-H1019D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER:		SPRK-H1021D										
30	21.80	21.30	15.50	95lbs @40.4mm	261lbs @12mm	15.30	22.70	13.2	SPR-H1021D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER:		SPRK-H1022D										
30	21.80	21	15.50	80lbs @40.4mm	215lbs @12mm	18.30	22	11.2	SPR-H1022D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER:		SPRK-M1007D-K2										
28.10	20	20	15.20	82lbs @39.8mm	238lbs @12mm	15.10	24.70	13	SPR-M1007D	RET-K20A3/T1	SEAT-HKA3	
PART NUMBER:		SPRK-H1007BE-1										
28	18.80	24.20	14.50	75lbs @39mm	230lbs @12mm	16.20	22.80	12.7	SPR-H1007BE	RET-H55BE-T1	SEAT-HKBE1	
PART NUMBER:		SPRK-H1007BE-2										
28	18.80	24.20	14.50	90lbs @37.8mm	248lbs @12mm	15	22.80	12.7	SPR-H1007BE	RET-H55BE-T1	SEAT-HKBE2	

HEAD GASKET

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HS255-I	Valve Guides	11.07	41.60	
GDE-HS255-E	Valve Guides	11.07	41.60	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H55-I	Valve Seals	
VS-H55-E	Valve Seals	
BG-S2000	Block Guards	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-HS2000-89-0.85T	Head Gaskets	89	.85	MLS



Honda

K20 / K24

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	
HIVN-1020D	Intake Valve	STD	35	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1020F	Intake Valve	STD	35	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1021D	Intake Valve	OS	35.5	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1021F	Intake Valve	OS	35.5	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1022D	Intake Valve	OS	36	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1022F	Intake Valve	OS	36	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1022.5F	Intake Valve	OS	36.5	5.48	108.85	SS /Black Nitride	Single Groove	
HIVN-1023F	Intake Valve	OS	37	5.48	108.85	SS /Black Nitride	Single Groove	
HIVT-1022F	Intake Valve	OS	36	5.48	106.95	Titanium	Single Groove	Must use lash cap
HIVT-1022.5F	Intake Valve	OS	36.5	5.48	106.95	Titanium	Single Groove	Must use lash cap
HIVT-1023F	Intake Valve	OS	37	5.48	106.95	Titanium	Single Groove	Must use lash cap
HIVT-1023F-50	Intake Valve	OS	37	5.48	106.95	Titanium	Single Groove	50 degree seat angle
HEVN-1020D	Exhaust Valve	STD	30	5.45	108.65	SS /Black Nitride	Single Groove	
HEVN-1020F	Exhaust Valve	STD	30	5.45	108.85	SS /Black Nitride	Single Groove	
HEVI-1020D	Exhaust Valve	STD	30	5.45	108.85	Inconel-Nimonic	Single Groove	
HEVN-1021F	Exhaust Valve	OS	30.5	5.45	108.85	SS /Black Nitride	Single Groove	
HEVI-1021D	Exhaust Valve	OS	30.5	5.45	108.85	Inconel-Nimonic	Single Groove	
HEVN-1030D	Exhaust Valve	OS	31	5.45	108.85	SS /Black Nitride	Single Groove	
HEVN-1030F	Exhaust Valve	OS	31	5.45	108.85	SS /Black Nitride	Single Groove	
HEVI-1030D	Exhaust Valve	OS	31	5.45	108.85	Inconel-Nimonic	Single Groove	
HEVN-1033F	Exhaust Valve	OS	31.5	5.45	108.85	SS /Black Nitride	Single Groove	
HEVI-1033D	Exhaust Valve	OS	31.5	5.45	108.85	Inconel-Nimonic	Single Groove	
HEVI-1020D-6	Exhaust Valve	STD	30	5.98	108.85	Inconel-Nimonic	Single Groove	
HEVT-1020F	Exhaust Valve	STD	30	5.45	106.75	Titanium	Single Groove	Must use lash cap
HEVT-1022F	Exhaust Valve	OS	31	5.45	106.75	Titanium	Single Groove	Must use lash cap

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-H100D-K20TI												
29.65	21.85	20.5	15.5	60lbs @37mm	203lbs @12.5mm	16.3	20.7	11.5	SPR-H100D	RET-K20A2/T2	SEAT-H1020DS	To Be used with Titanium valves
PART NUMBER: SPRK-H1005D-K20TI												
29.65	21.85	20.5	15.5	73lbs @37mm	213lbs @12.5mm	16.3	20.7	11.5	SPR-H1005D	RET-K20A2/T2	SEAT-H1020DS	To Be used with Titanium valves
PART NUMBER: SPRK-H100DR-K20TI												
30.2	22.2	22.2	16.8	78lbs @34mm	234lbs @12.5mm	15.5	18.5	12.5	SPR-H100DR	RET-K20A2/T2	SEAT-H1020DS	To Be used with Titanium valves
PART NUMBER: SPRK-3073-2034-K20TI												
29.65	21.85	21.3	15.5	84lbs @37.7mm	236lbs @12.5mm	16.2	21.5	12.2	SPR-3073-2034	RET-H1000/T2	SEAT-H1021TF + SS-3011	To Be used with Titanium valves
PART NUMBER: SPRK-H1022D-K20TI												
30	21.8	21	15.5	88lbs @39mm	228lbs @12.5mm	17.8	21.2	11.2	SPR-H1022D/K20TI	RET-AUVE/T1	SEAT-H1021TF	
PART NUMBER: SPRK-H1019D												
30	21.8	21.3	15.6	97lbs @40.4mm	275lbs @12mm	16	22.7	14.8	SPR-H1019D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER: SPRK-H1021D												
30	21.8	21.3	15.5	95lbs @40.4mm	261lbs @12mm	15.3	22.7	13.2	SPR-H1021D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER: SPRK-H1022D												
30	21.8	21	15.5	80lbs @40.4mm	215lbs @12mm	18.3	22	11.2	SPR-H1022D	RET-K20A2/T2	SEAT-H1020DS	
PART NUMBER: SPRK-M1007D-K2												
28.1	20	20	15.2	82lbs @39.6mm	238lbs @12mm	15.1	24.7	13	SPR-M1007D	RET-K20A3/T1	SEAT-HKA3	
PART NUMBER: SPRK-H1007BE-1												
28	18.8	24.2	14.5	75lbs @38.8mm	230lbs @12mm	16.2	22.8	12.7	SPR-H1007BE	RET-H55BE-T1	SEAT-HKBE1	
PART NUMBER: SPRK-H1007BE-2												
28	18.8	24.2	14.5	90lbs @37.6mm	248lbs @12mm	15	22.8	12.7	SPR-H1007BE	RET-H55BE-T1	SEAT-HKBE2	



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HK55-I	Valve Guides	11.07	41.60	
GDE-HK55-E	Valve Guides	11.07	45.60	
GDE-HK55-E-6	Valve Guides	11.07	45.60	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H55-I	Valve Seals	
VS-H55-E	Valve Seals	
VS-TS6-E	Valve Seals	
BG-S2000	Block Guard	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-HK87-0.85T	Head Gaskets	87	0.85	MLS
HG-HK88.5-0.85T	Head Gaskets	88.5	0.85	MLS
HG-HK89.5-0.85T	Head Gaskets	89	0.85	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-HK20-H139	139	22	19.8	51	19.8	515.9
CR-HK24-H152	152	22	19.8	51	19.8	536.6

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOVE DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
K20													
PART NUMBER: P4-HK86-N6				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86	STD	9:1	-6	50.7	30	86	X	138.98	22	4032	307	GNH8600	A/N/T
PART NUMBER: P4-HK86-P6				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86	STD	11.2:1	6.5	50.7	30	86	X	138.98	22	4032	304	GNH8600	A/N
PART NUMBER: P4-HK86-P8				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86	STD	11.6:1	8	50.7	30	86	X	138.98	22	4032	306	GNH8600	A/N
PART NUMBER: P4-HK86-P11				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86	STD	12:1	11	50.7	30	86	X	138.98	22	4032	314	GNH8600	A/N
PART NUMBER: P4-HK86-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86	STD	12.5:1	11.4	50.7	30	86	X	138.98	22	4032	296	GNH8600	A/N
PART NUMBER: P4-HK8650-N6				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86.5	0.5	9:1	-6	50.7	30	86	X	138.98	22	4032	281	GNH8650	A/N/T
PART NUMBER: P4-HK8650-P6				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86.5	0.5	11.2:1	6.5	50.7	30	86	X	138.98	22	4032	306	GNH8650	A/N
PART NUMBER: P4-HK8650-P11				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86.5	0.5	12:1	11	50.7	30	86	X	138.98	22	4032	316	GNH8650	A/N
PART NUMBER: P4-HK8650-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
86.5	0.5	12.5:1	11.4	50.7	30	86	X	138.98	22	4032	309	GNH8650	A/N
PART NUMBER: P4-HK87-P8				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	1	11.5:1	8	50.7	30	86	X	138.98	22	4032	322	GNH8700	A/N
PART NUMBER: P4-HK87-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	1	12.5:1	11.4	50.7	30	86	X	138.98	22	4032	325	GNH8700	A/N
PART NUMBER: P4-HK875-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	1.5	12.5:1	11.4	50.7	30	86	X	138.98	22	4032	343	GNH8750	A/N



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
K24													
PART NUMBER: P4-HK87-N0				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	STD	11.5:1	-0.5	50.7	30	99	X	152	22	4032	277	GNH8700	A/N
PART NUMBER: P4-HK87-P4				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	STD	12.5:1	4.5	50.7	30	99	X	152	22	4032	308	GNH8700	A/N
PART NUMBER: P4-HK87-P8				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	STD	13.2:1	8	50.7	30	99	X	152	22	4032	322	GNH8700	A/N
PART NUMBER: P4-HK87-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87	STD	14.4:1	11.4	50.7	30	99	X	152	22	4032	325	GNH8700	A/N
PART NUMBER: P4-HK875-N0				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87.5	0.5	11.5:1	-0.5	50.7	30	99	X	152	22	4032	280	GNH8750	A/N
PART NUMBER: P4-HK875-P4				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87.5	0.5	12.5:1	4	50.7	30	99	X	152	22	4032	315	GNH8750	A/N
PART NUMBER: P4-HK875-P15				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
87.5	0.5	14.4:1	11.4	50.7	30	99	X	152	22	4032	325	GNH8750	A/N
PART NUMBER: P4-HK88-P4				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
88	1	12.5:1	4	50.7	30	99	X	152	22	4032	317	GNH8800	A/N
PART NUMBER: P4-HK89-P4				NOTES: K series piston accepts 36.5mm Intake and 31.5mm Exhaust valves									
89	2	12.5:1	4	50.7	30	99	X	152	22	4032	325	GNH8900	A/N

Honda

K24Z7 2.0L / 2.4L DOHC VTEC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1022D	Intake Valve	STD	36	5.48	108.85	SS /Black Nitride	Single Groove
HIVN-1022F	Intake Valve	STD	36	5.48	108.85	SS /Black Nitride	Single Groove
HIVN-1022.5F	Intake Valve	OS	36.5	5.48	108.85	SS /Black Nitride	Single Groove
HIVN-1023F	Intake Valve	OS	37	5.48	108.85	SS /Black Nitride	Single Groove
HEVN-1030D	Exhaust Valve	STD	31	5.45	108.85	SS /Black Nitride	Single Groove
HEVN-1030F	Exhaust Valve	STD	31	5.45	108.85	SS /Black Nitride	Single Groove
HEVI-1030D	Exhaust Valve	STD	31	5.45	108.85	Inconel-Nimonic	Single Groove
HEVN-1033F	Exhaust Valve	OS	31.5	5.45	108.85	SS /Black Nitride	Single Groove
HEVI-1033D	Exhaust Valve	OS	31.5	5.45	108.85	Inconel-Nimonic	Single Groove
HEVI-1035D	Exhaust Valve	OS	32	5.45	108.85	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1000D-Z7									
29.65	21.85	20.5	15.5	67lbs @36.4mm	210lbs @12.5mm	15.7	20.7	11.5	SPR-H1000D	RET-K24Z7/T1	SEAT-H1020DS
PART NUMBER:		SPRK-H1005D-Z7									
29.65	21.85	20.5	15.5	80lbs @36.4mm	220lbs @12.5mm	15.7	20.7	11.5	SPR-H1005D	RET-K24Z7/T1	SEAT-H1020DS
PART NUMBER:		SPRK-H100DR-Z7									
30.3	22.2	22.2	16.8	86lbs @33.4mm	234lbs @12.5mm	14.9	18.5	12.5	SPR-H100DR	RET-K24Z7/T1	SEAT-H1020DS + SS-3011-3



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HK55-I	Valve Guides	11.07	41.60	
GDE-HK55-E	Valve Guides	11.07	45.60	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H55-I	Valve Seals	
VS-H55-E	Valve Seals	

Honda

K20C1 / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
HIVN-1060D	Intake Valve	STD	35	5.48	117.25	SS /Black Nitride	Single Groove	
HEVI-1060D-HS	Exhaust Valve	STD	29	5.45	114.7	Sodium filled Inconel	Single Groove	

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-K20C-1									
23.7	16.3	Single	Single	77lbs @40.6mm	176lbs @10mm	13.8	27.3	9.9	SPR-H1003S	RET-1003-C	SEAT-1003-CI + SEAT-1003-CE

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H5.5I	Valve Seals	
VS-H5.5E	Valve Seals	



Honda

B16A / B17A / B18C1 / B18C5

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-200F	Intake Valve	STD	33	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-100F	Intake Valve	STD	33	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-1000	Intake Valve	STD	33	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-1000D	Intake Valve	OS	33.5	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-1000F	Intake Valve	OS	33.5	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-1001	Intake Valve	OS	34	5.48	102.5	SS /Black Nitride	Single Groove
HIVN-1001F	Intake Valve	OS	34	5.48	102.5	SS /Black Nitride	Single Groove
HEVN-200F	Exhaust Valve	STD	28	5.45	102.5	SS /Black Nitride	Single Groove
HEVN-100F	Exhaust Valve	STD	28	5.45	102.5	SS /Black Nitride	Single Groove
HEVN-1000	Exhaust Valve	STD	28	5.45	102.5	SS /Black Nitride	Single Groove
HEVN-1001F	Exhaust Valve	OS	28.5	5.45	102.5	SS /Black Nitride	Single Groove
HEVN-1001D	Exhaust Valve	OS	28.5	5.45	102.5	SS /Black Nitride	Single Groove
HEVN-1001-2F	Exhaust Valve	OS	29	5.45	102.5	SS /Black Nitride	Single Groove
HEVI-1000	Exhaust Valve	STD	28	5.45	102.5	Inconel-Nimonic	Single Groove
HEVI-1001	Exhaust Valve	OS	28.5	5.45	102.5	Inconel-Nimonic	Single Groove
HEVI-1001-2	Exhaust Valve	OS	29	5.45	102.5	Inconel-Nimonic	Single Groove
HEVI-1000-HS-6	Exhaust Valve	STD	28	6.00mm (so- dium filled) 5.5m tip	102.5	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H200DR										
30.2	22.2	22.2	16.8	100lbs @33.5mm	222lbs @10mm	13	20	12.2	SPR-H200DR	RET-K20A2/T2	OEM Seat or SEAT-H1002D	
PART NUMBER:		SPRK-H100DR										
30.2	22.2	22.2	16.8	85lbs @33.5mm	210lbs @10mm	15	18.5	12.5	SPR-H100DR	RET-K20A2/T2	OEM Seat or SEAT-H1002D	
PART NUMBER:		SPRK-H1002D										
29.05	21.85	20.5	15.5	70lbs @33.5mm	170lbs @10mm	14	19.5	10	SPR-H1002D	RET-K20A2/T2	OEM Seat or SEAT-H1002D	
PART NUMBER:		SPRK-H100DR-ST										
30.2	22.2	22.2	16.8	85lbs @33.5mm	210lbs @10mm	15	18.5	12.5	SPR-H100DR	RET-HBK-ST	OEM Seat or SEAT-H1002D	Steel Retainer
PART NUMBER:		SPRK-H1002D-ST										
29.05	21.85	20.5	15.5	70lbs @33.5mm	170lbs @10mm	14	19.5	10	SPR--H1002D	RET-HBK-ST	OEM Seat or SEAT-H1002D	Steel Retainer
PART NUMBER:		SPRK-H1002D-BE										
29.1	21.3	23	15.65	72lbs @33.5mm	170lbs @10mm	13.5	19	9.7	SPR-H1002D-BE	RET-H55BE-T1-B	SEAT-TS15/LS-IN	Beehive

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HB55-E	Valve Guides	12.07	46.6	
GDE-HB55-I	Valve Guides	12.07	41.7	
GDE-HB55-E-OS	Valve Guides	12.095	46.6	
GDE-HB55-I-OS	Valve Guides	12.095	41.7	



COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H5.5I	Valve Seals	
VS-H5.5E	Valve Seals	
BG-B16	Block Guard	
LP-HB	VTECH Locking Pin	Titanium (7 gram weight reduction)
LM-HB	Loss Motion Assembly	To be used with beehive springs

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-HB16A-82-085T	Head Gaskets	82	0.85	MLS
HG-HB16A-83-085T	Head Gaskets	83	0.85	MLS
HG-HB16A-84-085T	Head Gaskets	84	0.85	MLS
HG-HB16A-85-085T	Head Gaskets	85	0.85	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-HB16A-H134.4	134.4	21 (Full Float)	22.9	48	23.75	533
CR-HB18C-H138	138	21 (Full Float)	22.9	48	21.8	523.7

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
B16 / B17													
PART NUMBER: P4-H81-P6													
81 (81.02)	STD	10.5:1	-2.5	41.5	30	87.2	R	137.9	21	4032	302	GNH8100	T/N
PART NUMBER: P4-H81-P7													
81 (81.02)	STD	11:1	5.9	41.5	30	87.2	X	137.9	21	4032	246	GNH8100	A/N
PART NUMBER: P4-H81-N2R													
81 (81.02)	STD	9:1	7	41.5	30	87.2	X	137.9	21	4032	241	GNH8100	A/N
PART NUMBER: P4-H815-P6													
81.5	0.5	10.5:1	5.9	41.5	30	87.2	X	137.9	21	4032	261	GNH8150	A/N
PART NUMBER: P4-H815-P7													
81.5	0.5	11:1	7	41.5	30	87.2	X	137.9	21	4032	250	GNH-8150	T/N
PART NUMBER: P4-H815-N2													
81.5	0.5	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	235	GNH8150	A/N
PART NUMBER: P4-H82-N2													
82	1	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	250	GNH820	T/N
PART NUMBER: P4-H82-P6													
82	1	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	290	GNH8200	A/N
PART NUMBER: P4-H82-P7													
82	1	11.1:1	7	41.5	30	87.2	X	137.9	21	4032	257	GNH8200	A/N
PART NUMBER: P4-H83-P6													
83	2	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	300	GNH8300	A/N
PART NUMBER: P4-H84-N10R													
84	3	8.6:1	-10.3	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-N2R													
84	3	9.5:1	-2.5	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-P1													
84	3	10.2:1	1.4	41.5	30	87.2	R	137.9	21	4032	285	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	3	11.2:1	5.5	41.5	30	87.2	X	137.9	21	4032	310	GNH8400	A/N
PART NUMBER: P4-H845-N2R													
84.5	3.5	9.6:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8450	T/N
PART NUMBER: P4-H85-N2R													
85	4	9.7:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8500	T/N



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
B18C1													
PART NUMBER: P4-H81-P6													
81 (81.02)	STD	10.5:1	-2.5	41.5	30	87.2	R	137.9	21	4032	302	GNH8100	T/N
PART NUMBER: P4-H81-P7													
81 (81.02)	STD	11:1	5.9	41.5	30	87.2	X	137.9	21	4032	246	GNH8100	A/N
PART NUMBER: P4-H81-N2R													
81 (81.02)	STD	9:1	7	41.5	30	87.2	X	137.9	21	4032	241	GNH8100	A/N
PART NUMBER: P4-H815-P6													
81.5	0.5	10.5:1	5.9	41.5	30	87.2	X	137.9	21	4032	261	GNH8150	A/N
PART NUMBER: P4-H815-P7													
81.5	0.5	11:1	7	41.5	30	87.2	X	137.9	21	4032	250	GNH-8150	T/N
PART NUMBER: P4-H815-N2													
81.5	0.5	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	235	GNH8150	A/N
PART NUMBER: P4-H82-N2													
82	1	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	250	GNH820	T/N
PART NUMBER: P4-H82-P6													
82	1	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	290	GNH8200	A/N
PART NUMBER: P4-H82-P7													
82	1	11.1:1	7	41.5	30	87.2	X	137.9	21	4032	257	GNH8200	A/N
PART NUMBER: P4-H83-P6													
83	2	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	300	GNH8300	A/N
PART NUMBER: P4-H84-N10R													
84	3	8.6:1	-10.3	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-N2R													
84	3	9.5:1	-2.5	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-P1													
84	3	10.2:1	1.4	41.5	30	87.2	R	137.9	21	4032	285	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	3	11.2:1	5.5	41.5	30	87.2	X	137.9	21	4032	310	GNH8400	A/N
PART NUMBER: P4-H845-N2R													
84.5	3.5	9.6:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8450	T/N
PART NUMBER: P4-H85-N2R													
85	4	9.7:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8500	T/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
B18C5													
PART NUMBER: P4-H81-P6													
81 (81.02)	STD	10.5:1	-2.5	41.5	30	87.2	R	137.9	21	4032	302	GNH8100	T/N
PART NUMBER: P4-H81-P7													
81 (81.02)	STD	11:1	5.9	41.5	30	87.2	X	137.9	21	4032	246	GNH8100	A/N
PART NUMBER: P4-H81-N2R													
81 (81.02)	STD	9:1	7	41.5	30	87.2	X	137.9	21	4032	241	GNH8100	A/N
PART NUMBER: P4-H815-P6													
81.5	0.5	10.5:1	5.9	41.5	30	87.2	X	137.9	21	4032	261	GNH8150	A/N
PART NUMBER: P4-H815-P7													
81.5	0.5	11:1	7	41.5	30	87.2	X	137.9	21	4032	250	GNH-8150	T/N
PART NUMBER: P4-H815-N2													
81.5	0.5	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	235	GNH8150	A/N
PART NUMBER: P4-H82-N2													
82	1	9:1	-2.5	41.5	30	87.2	X	137.9	21	4032	250	GNH820	T/N
PART NUMBER: P4-H82-P6													
82	1	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	290	GNH8200	A/N
PART NUMBER: P4-H82-P7													
82	1	11.1:1	7	41.5	30	87.2	X	137.9	21	4032	257	GNH8200	A/N
PART NUMBER: P4-H83-P6													
83	2	10.6:1	5.9	41.5	30	87.2	X	137.9	21	4032	300	GNH8300	A/N
PART NUMBER: P4-H84-N10R													
84	3	8.6:1	-10.3	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-N2R													
84	3	9.5:1	-2.5	41.5	30	87.2	X	137.9	21	4032	295	GNH8400	T/N
PART NUMBER: P4-H84-P1													
84	3	10.2:1	1.4	41.5	30	87.2	R	137.9	21	4032	285	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	3	11.2:1	5.5	41.5	30	87.2	X	137.9	21	4032	310	GNH8400	A/N
PART NUMBER: P4-H845-N2R													
84.5	3.5	9.6:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8450	T/N
PART NUMBER: P4-H85-N2R													
85	4	9.7:1	-2.5	41.5	30	87.2	R	137.9	21	4032	295	GNH8500	T/N



Honda

D16A6 / D15B

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1003	Intake Valve	STD	29	5.48	115	SS /Black Nitride	Single Groove
HEVN-1003	Exhaust Valve	STD	25	5.45	118.75	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1003S									
23.7	16.3	Single	Single	73lbs @40.6mm	192lbs @12mm	13.3	27.3	9.9	SPR-H1003S	RET-H1003/T1	SEAT-H1003E

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HD55-I	Valve Guides	11.07	44.8	
GDE-HD55-E	Valve Guides	11.07	46.7	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-ST-32	Valve Locks	
VS-H5.5I	Valve Seals	
VS-H5.5I-8	Valve Seals	
VS-H5.5E	Valve Seals	
VS-H5.5E-8	Valve Seals	
BG-D15/D16	Block Guard	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-HD16A-76-0.85T	Head Gaskets	76	0.85	MLS	Fits: D15B1-B8 , D16A6-A7, D16Z1-Z2

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-HD755-N12													
75.5	0.5	9:0.1	-12.5	34.6	30	90	R	137	19	4032	220	GNH7550	
PART NUMBER: P4-HD755-N3													
75.5	0.5	10.8:1	-3	34.6	30	90	R	137	19	4032	231	GNH7550	

Honda

D16Z6 / D16Y6 / D16Y7 / D16Y8 / D15B / D17A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1012	Intake Valve	STD	30	5.48	118.5	SS /Black Nitride	Single Groove
HIVN-1002	Intake Valve	OS	30.5	5.48	118.5	SS /Black Nitride	Single Groove
HIVN-1102	Intake Valve	OS	31	5.48	118.5	SS /Black Nitride	Single Groove
HEVN-1012	Exhaust Valve	STD	26	5.45	116	SS /Black Nitride	Single Groove
HEVN-1002	Exhaust Valve	OS	26.5	5.45	116	SS /Black Nitride	Single Groove
HEVI-1102	Exhaust Valve	OS	27	5.45	116	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER: SPRK-H1002S										
22.7	15.2	Single	Single	60lbs @49.5mm	166lbs @12.5mm	14.9	34.6	8.5	SPR-H1002S	RET-H1002/T1



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HD55-I	Valve Guides	11.07	44.8	
GDE-HD55-E	Valve Guides	11.07	46.7	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-HD755-N12													
75.5	0.5	9:0.1	-12.5	34.6	30	90	R	137	19	4032	220	GNH7550	
PART NUMBER: P4-HD755-N3													
75.5	0.5	10.8:1	-3	34.6	30	90	R	137	19	4032	231	GNH7550	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-ST-32	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A-LG-32	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
KPR-5.5-7A-32	Valve Locks	Stamped
VS-H5.5I	Valve Seals	
VS-H5.5I-8	Valve Seals	
VS-H5.5E	Valve Seals	
VS-H5.5E-8	Valve Seals	
BG-D15/D16	Block Guard	
BG-D17A	Block Guard	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-HD16YZ-76-0.85T	Head Gaskets	76	.85	MLS

Honda

B18A / B18B / B20

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1004-0	Intake Valve	STD	31	6.57	105.4	SS /Black Nitride	Single Groove
HIVN-1004	Intake Valve	OS	31.5	6.57	105.4	SS /Black Nitride	Single Groove
HEVN-1004-0	Exhaust Valve	STD	28	6.55	105.8	SS /Black Nitride	Single Groove
HEVN-1004	Exhaust Valve	OS	28.5	6.55	105.8	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-LS									
27.5	20	20	15.5	77lbs @34.5mm	211lbs @11mm	13.8	20.7	12.1	SPR-TS1015	RET-TS66/T1	(8) SEAT-TS15/LS-IN, (8) SEAT-TS15/LS-EX
PART NUMBER:		SPRK-TS2081-LS									
27.5	20	Single	Single	54lbs @34.5mm	152lbs @11mm	13.8	20.7	9.6	SPR-TS1015-SI	RET-TS66/T1	(8) SEAT-TS15/LS-IN, (8) SEAT-TS15/LS-EX

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-H66-I	Valve Guides	12.07	46.5	
GDE-H66-E	Valve Guides	12.07	46.5	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6.6-LS	Valve Locks	
KPR-6.6-LS-32	Valve Locks	
VS-H6.6-I	Valve Seals	
VS-H6.6-I-8	Valve Seals	
VS-H6.6-E	Valve Seals	
VS-H6.6-E-8	Valve Seals	
BG-B16	Block Guard	



HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-HB18A-82-0.85T	Head Gaskets	82	0.85	MLS
HG-HB18A-83-0.85T	Head Gaskets	83	0.85	MLS
HG-HB18A-84-0.85T	Head Gaskets	84	0.85	MLS
HG-HB18A-85-0.85T	Head Gaskets	85	0.85	MLS
HG-HB18A-V-82-0.85T	Head Gaskets	82	0.85	MLS
HG-HB18A-V-83-0.85T	Head Gaskets	83	0.85	MLS
HG-HB18A-V-84-0.85T	Head Gaskets	84	0.85	MLS
HG-HB18A-V-85-0.85T	Head Gaskets	85	0.85	MLS

Honda

LS NON VTEC (+0.3 w/GSR B18C head)

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLI- CATION
PART NUMBER: P4-H81-N2R													
81 (81.02)	STD	9.6:1	-2.5	45	30	89	R	137	21	4032	302	GNH8100	T/N
PART NUMBER: P4-H81-P6													
81 (81.02)	STD	11.4:1	5.9	45	30	89	X	137	21	4032	246	GNH8100	A/N
PART NUMBER: P4-H81-P7													
81 (81.02)	STD	12:1	7.5	45	30	89	X	137	21	4032	241	GNH8100	A/N
PART NUMBER: P4-H815-P6													
81.5	0.5	11.4:1	-2.5	45	30	89	X	137	21	4032	261	GNH8150	A/N
PART NUMBER: P4-H815-P7													
81.5	0.5	12.1:1	-2.5	45	30	89	X	137	21	4032	250	GNH-8150	T/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-H815-N2													
81.5	0.5	9.6:1	-2.5	45	30	89	X	137	21	4032	235	GNH8150	A/N/T
PART NUMBER: P4-H82-N2													
82	1	10.1:1	-2.5	42.7	30	89	X	137	21	4032	250	GNH8200	T/N
PART NUMBER: P4-H82-P6													
82	1	12:1	5.9	42.7	30	89	X	137	21	4032	290	GNH8200	A/N
PART NUMBER: P4-H82-P7													
82	1	12.5:1	7.5	42.7	30	89	X	137	21	4032	257	GNH8200	A/N
PART NUMBER: P4-H83-P6													
83	2	12:1	5.9	42.7	30	89	X	137	21	4032	300	GNH8300	A/N
PART NUMBER: P4-H84-N10R													
84	3	9.5:1	-10.3	42.7	30	89	R	137	21	4032	290	GNH8400	A/N/T
PART NUMBER: P4-H84-N2R													
84	3	10.8:1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8400	T/N
PART NUMBER: P4-H84-P1R													
84	3	11.5:1	1.4	42.7	30	89	X / R	137	21	4032	275 / 317	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	3	12.5:1	5.5	42.7	30	89	X	137	21	4032	319	GNH8400	A/N
PART NUMBER: P4-H845-N2R													
84	3.5	10.9:1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8450	T/N
PART NUMBER: P4-H85-N2R													
85	4	11:0.1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8500	T/N

Honda

LS W/ B16A HEAD (+0.3 w/GSR B18C head)

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-H81-N2R													
81 (81.02)	STD	9.6:1	-2.5	45	30	89	R	137	21	4032	302	GNH8100	T/N
PART NUMBER: P4-H81-P6													
81 (81.02)	STD	11.4:1	5.9	45	30	89	X	137	21	4032	246	GNH8100	A/N



BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-H81-P7													
81 (81.02)	STD	12:1	7.5	45	30	89	X	137	21	4032	241	GNH8100	A/N
PART NUMBER: P4-H815-P6													
81.5	0.5	11.4:1	-2.5	45	30	89	X	137	21	4032	261	GNH8150	A/N
PART NUMBER: P4-H815-P7													
81.5	0.5	12.1:1	-2.5	45	30	89	X	137	21	4032	250	GNH-8150	T/N
PART NUMBER: P4-H815-N2													
81.5	0.5	9.6:1	-2.5	45	30	89	X	137	21	4032	235	GNH8150	A/N/T
PART NUMBER: P4-H82-N2													
82	1	10.1:1	-2.5	42.7	30	89	X	137	21	4032	250	GNH8200	T/N
PART NUMBER: P4-H82-P6													
82	1	12:1	5.9	42.7	30	89	X	137	21	4032	290	GNH8200	A/N
PART NUMBER: P4-H82-P7													
82	1	12.5:1	7.5	42.7	30	89	X	137	21	4032	257	GNH8200	A/N
PART NUMBER: P4-H83-P6													
83	2	12:1	5.9	42.7	30	89	X	137	21	4032	300	GNH8300	A/N
PART NUMBER: P4-H84-N10R													
84	3	9.5:1	-10.3	42.7	30	89	R	137	21	4032	290	GNH8400	A/N/T
PART NUMBER: P4-H84-N2R													
84	3	10.8:1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8400	T/N
PART NUMBER: P4-H84-P1R													
84	3	11.5:1	1.4	42.7	30	89	X / R	137	21	4032	275 / 317	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	3	12.5:1	5.5	42.7	30	89	X	137	21	4032	319	GNH8400	A/N
PART NUMBER: P4-H845-N2R													
84	3.5	10.9:1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8450	T/N
PART NUMBER: P4-H85-N2R													
85	4	11:0.1	-2.5	42.7	30	89	R	137	21	4032	290	GNH8500	T/N

B20 WITH A B16A HEAD (+0.3 w/GSR B18C head)

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-H84-N10R													
84	STD	9.5:1	-10.3	42.7	30	89	R	137	21	4032	295	GNH8400	A/N/T
PART NUMBER: P4-H84-N2R													
84	STD	10.8:1	-2.5	42.7	30	89	R	137	21	4032	295	GNH8400	A/N/T
PART NUMBER: P4-H84-P1													
84	STD	11.5:1	1.4	42.7	30	89	X / R	137	21	4032	285	GNH8400	A/N
PART NUMBER: P4-H84-P5													
84	STD	12.5:1	5.5	42.7	30	89	X	137	21	4032	310	GNH8400	A/N

Honda

ZC / D16A1 / D16A9

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1005	Intake Valve	OS	30.5	6.57	105.4	SS /Black Nitride	Single Groove
HEVN-1005	Exhaust Valve	OS	27.5	6.55	104.6	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER: SPRK-EC3027S-ZC											
26.6	19.6	Single	Single	65lbs @33.8mm	135lbs @10mm	11.6	20.7	7	SPR-EC3027S	RET-TS66/T1-ZC	SEAT-TS/MA18-I



COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6.6-LS	Valve Locks	
VS-H6.6-I	Valve Seals	
VS-H6.6-E	Valve Seals	
BG-B16ZC	Block Guard	
BG-D16A1	Block Guard	

Honda

F22A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-F22A-1	Intake Valve	OS	35	5.48	112	SS /Black Nitride	Single Groove
HIVN-F22A-BM	Intake Valve	OS	37	5.48	112	SS /Black Nitride	Single Groove
HEVN-F22A-BM	Exhaust Valve	OS	30	5.45	123.5	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-F22AB									
23.7	16.2	Single Intake		74lbs @41mm	171lbs @10mm	12.7	28.3	9.9	SPR-F22AB	RET-H1003/T1	SEAT- H1003-R18-3.5
23.7	16.2	Single Exhaust		74lbs @41mm	171lbs @10mm	12.7	28.3	9.9	SPR-F22AB	RET-H1003/T1	SEAT- H1003-R18

Honda

H22A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1006D	Intake Valve	STD	35	5.48	106.85	SS /Black Nitride	Single Groove
HIVN-1006F	Intake Valve	STD	35	5.48	106.85	SS /Black Nitride	Single Groove
HIVN-1007	Intake Valve	OS	35.5	5.48	106.85	SS /Black Nitride	Single Groove
HIVN-1008	Intake Valve	OS	36	5.48	106.85	SS /Black Nitride	Single Groove
HIVC-1009	Intake Valve	OS	37	5.48	106.85	Chrome	Single Groove
HEVN-1006D	Exhaust Valve	STD	30	5.45	106.45	SS /Black Nitride	Single Groove
HEVN-1006F	Exhaust Valve	STD	30	5.45	106.45	SS /Black Nitride	Single Groove
HEVI-1006F	Exhaust Valve	STD	30	5.45	106.45	Inconel-Nimonic	Single Groove
HEVN-1007	Exhaust Valve	OS	30.5	5.45	106.45	SS /Black Nitride	Single Groove
HEVI-1008	Exhaust Valve	OS	31	5.45	106.45	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-H1000D								
29.65	21.85	20.5	15.5	80lbs @35.5mm	223lbs @12.5mm	14.8	20.7	11.5	SPR-H1000D	RET-K20A2/T2
PART NUMBER:		SPRK-H1005D								
29.65	21.85	20.5	15.5	93lbs @35.5mm	239lbs @12.5mm	14.8	20.7	11.5	SPR-H1005D	RET-K20A2/T2

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HB55-I	Valve Guides	12.07	41.7	
GDE-HB55-E	Valve Guides	12.07	46.6	
GDE-HB55-I-OS	Valve Guides	12.095	41.7	
GDE-HB55-E-OS	Valve Guides	12.095	46.6	



COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H5.5I	Valve Seals	
VS-H5.5E	Valve Seals	
BG-H22A	Block Guard	

Honda

H23A DOHC NON-VTEC / 2.3L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1042D	Intake Valve	OS	35	6.58	103.5	SS /Black Nitride	Single Groove
HEVN-1042D	Exhaust Valve	STD	30	6.54	102.7	SS /Black Nitride	Single Groove

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-H66-I	Valve Guides	12.07	46.5	
GDE-H66-E	Valve Guides	12.07	46.5	

Honda ; Acura

NSX C32B / 3.2L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-NSX-1	Intake Valve	STD	36	5.48	112.15	SS /Black Nitride	Single Groove
HIVN-NSX-2	Intake Valve	OS	37	5.48	112.15	SS /Black Nitride	Single Groove
HEVI-NSX-C1	Exhaust Valve	STD	30	5.45	111	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/ MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1000D-NSX									
29.7	21.9	20.5	15.5	67lbs @36.4mm	205lbs @12mm	15.7	20.7	11.5	SPR- H1000D	RET- K20A2/ T2-NS	SEAT-H1020DS
PART NUMBER:		SPRK-H1005D-NSX									
29.65	21.85	20.5	15.5	80lbs @36.4mm	234lbs @12mm	15.7	20.7	11.5	SPR- H1005D	RET- K20A2/ T2-NS	SEAT-H1020DS

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-HNSX-I	Valve Guides	11.065	47.4	
GDE-HNSX-E	Valve Guides	11.065	49.2	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped
VS-H5.5I	Valve Seals	
VS-H5.5E	Valve Seals	



Honda ; Acura

J30 / J32

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-3234	Intake Valve	STD	34	5.48	114.7	SS /Black Nitride	Single Groove
HEVI-322B	Exhaust Valve	STD	28	5.45	117.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1003S-J32										
23.7	16.2	Single	Single	62lbs @42mm	161lbs @10mm	12.3	27.6	9.9	SPR-H1003S	RET-H1003/T1	SEAT-H1003-J32	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped

Honda ; Acura

J35 -SOHC VTEC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-3536	Intake Valve	STD	36	5.48	116.9	SS /Black Nitride	Single Groove
HEVI-3530	Exhaust Valve	STD	30	5.45	114.2	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1003S-J32									
23.7	16.2	Single	Single	62lbs @42mm	161lbs @10mm	12.3	27.6	9.9	SPR-H1003S	RET-H1003/T1	SEAT- H1003-J32

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
KPR-5.5-7A-LG	Valve Locks	.045" Longer
KPR-5.5-7A	Valve Locks	Stamped



Honda

CR-Z /L15A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1050	Intake Valve	STD	28	5.48	118.85	SS /Black Nitride	Single Groove
HEVI-1050	Exhaust Valve	STD	23	5.46	117.55	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H2416									
24	16.5	Single	Single	61lbs @40.2mm	164lbs @10mm	15.3	24.9	9.9	SPR-H2416	RET-H2416	SEAT-A2416-IN + SEAT-A2416-EX

COMPONENTS

PART NUMBER	NAME	NOTES
VS-H5.5I	Intake Valve Seals	
VS-H5.5E	Exhaust Valve Seals	
KPR-5.5-7A	Valve Locks	Factory 6 Degree Keeper

Honda

R18A SOHC I-VTEC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-1018	Intake Valve	STD	32	5.485	116.7	SS /Black Nitride	Single Groove
HEVN-1012	Exhaust Valve	STD	26	5.45	115.95	SS /Black Nitride	Single Groove
HEVI-1102	Exhaust Valve	OS	27	5.45	115.95	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1003S-R18									
23.7	16.3	Single	Single	68lbs@ 41.15mm	167lbs @10mm	14.2	27.3	9.9	SPR- H1003S	RET-H1003-T1-R18	SEAT- H1003-R18

COMPONENTS

PART NUMBER	NAME	NOTES
VS-H5.5I	Intake Valve Seals	
VS-H5.5E	Exhaust Valve Seals	



Hyundai

G4KF ; THETA L4 / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MIVN-1017	Intake Valve	STD	35	5.47	113.25	SS /Black Nitride	Single Groove
MIVN-1019	Intake Valve	OS	36	5.47	113.25	SS /Black Nitride	Single Groove
MEVI-1017	Exhaust Valve	STD	29	5.46	105.9	Inconel-Nimonic	Single Groove
MEVI-1019	Exhaust Valve	OS	30	5.46	105.9	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-HY1015S									
27.5	20	Single	Single	57lbs @34.8mm	144lbs @10mm	14.5	20.7	7	SPR-TS1015S	RET-TS5.5/T1	SEAT-M1015-2
PART NUMBER:		SPRK-HY1012D									
27.5	20	20	15.2	75lbs @34.5mm	170lbs @10mm	14.5	20	9.6	SPR-TS1012D	RET-TS5.5/T1EX	SEAT-M1015-1
PART NUMBER:		SPRK-HY1015-2									
27.5	20	20	15.2	75lbs @35.3mm	196lbs @10mm	14.5	20.7	12.1	SPR-TS1015-2	RET-TS5.5/T1EX	SEAT-M1015-1
PART NUMBER:		SPRK-HY1015-3									
27.5	20	20	15.2	85lbs @34.5mm	211lbs @10mm	13.8	20.7	12.1	SPR-TS1015-3	RET-TS5.5/T1EX	SEAT-M1015-2
PART NUMBER:		SPRK-M1012-EX1-BE									
27.7	19.7	23.2	15.2	67lbs @35.5mm	182lbs @11.5mm	13	21.5	10	SPR-TS1012-BE	RET-TS5.5/T9F-BE	SEAT-M1015-2

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MEVOX-OS	Valve Guides	11.28	43.65	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-M5.5V	Valve Seals	

Hyundai

GENESIS / 3.8L

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/ MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1002D-HY									
29.05	21.85	20.5	15.5	76lbs @34.3mm	184lbs @10mm	13	19.5	10	SPR- H1002D	RET-K20A2/T2	SEAT-GEN/2



Lancia

DELTA / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
LIVN-1001	Intake Valve	STD	34.4	6.98	128.8	SS /Black Nitride	Single Groove
LEVI-1001	Exhaust Valve	STD	28.4	6.97	126	Inconel-Nimonic	Single Groove

Alfa Romeo

155 Q4 / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
LIVN-1001	Intake Valve	STD	34.4	6.98	128.8	SS /Black Nitride	Single Groove
LEVI-1001	Exhaust Valve	STD	28.4	6.97	126	Inconel-Nimonic	Single Groove

Mazda

B6 DOHC MIATA / 1.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
MAIVN-1100	Intake Valve	STD	31	5.96	105.35	SS /Black Nitride	Single Groove	High Flow
MAIVN-1102	Intake Valve	OS	32	5.96	105.35	SS /Black Nitride	Single Groove	High Flow
MAIVN -1100-2	Intake Valve	STD	31	5.96	105.35	SS /Black Nitride	Single Groove	Std Flow
MAEVN-1100	Exhaust Valve	STD	26.2	5.94	105.35	SS /Black Nitride	Single Groove	
MAEVN-1102	Exhaust Valve	OS	27.2	5.94	105.35	SS /Black Nitride	Single Groove	

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MM16S										
27.5	20	Single	Single	65lbs @33.6mm	158lbs @10mm	12.9	20.7	9.4	SPR-TS1015-SI	RET-TS60/MA2	SEAT-TS/MA18I	
PART NUMBER:		SPRK-MM16D2										
27.5	20	20	15.2	74lbs @35mm	195lbs @10mm	14.3	20.7	12.1	SPR-TS1015	RET-TS60/MA2	SEAT-TS/MA18E	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MA16-IE	Valve Guides	11.057	48.7	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-30-16LC	30	26	16mm for 5.5mm Lash Caps	
CF-30-16LC-8	30	26	16mm for 5.5mm Lash Caps	



COMPONENTS

PART NUMBER	NAME	NOTES
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MMX5-H133	133	20	21.85	48	21.85	531.9

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MA7850-N10													
78.5	0.5	8.8:1	-11	36	32	83.3	R	133	20	4032	353	GNH7850	T/N
PART NUMBER: P4-MA790-N10													
79	1	8.8:1	-11	36	32	83.3	R	133	20	4032	260	GNH7900	T/N
PART NUMBER: P4-MA790-N10													
79	1	10.6:1	-1	36	32	83.3	R	133	20	4032	258	GNH7900	T/N

Mazda

1.8 MIATA BP / 1.8L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
MAIVN-1204	Intake Valve	STD	33	5.97	102	SS /Black Nitride	Single Groove	
MAIVN-1208	Intake Valve	STD	33	5.97	102	SS /Black Nitride	Single Groove	Standard Flow
MAIVN-1206	Intake Valve	OS	34	5.97	102	SS /Black Nitride	Single Groove	
MAEVN-1204	Exhaust Valve	STD	28	5.94	102	SS /Black Nitride	Single Groove	
MAEVI-1204	Exhaust Valve	STD	28	5.94	102	Inconel-Nimonic	Single Groove	
MAEVN-1206	Exhaust Valve	OS	29	5.94	102	SS /Black Nitride	Single Groove	
MAEVI-1206	Exhaust Valve	OS	29	5.94	102	Inconel-Nimonic	Single Groove	

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MM18S										
27.5	20	Single	Single	56lbs @34.2mm	160lbs @10mm	12.9	20.7	9.4	SPR-TS1015-SI	RET-TS60/MA2	SEAT-TS/MA18I	
PART NUMBER:		SPRK-1012-M18D										
27.5	20	20	15.2	75lbs @34.2mm	175lbs @10mm	12.9	20	9.6	SPR-TS1012	RET-TS60/MA2	SEAT-TS/MA18I	
PART NUMBER:		SPRK-MM18D										
27.5	20	20	15.2	85lbs @34.2mm	210lbs @10mm	12.9	20.7	12.1	SPR-TS1015	RET-TS60/MA2	SEAT-TS/MA18I	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MA18-I	Valve Guides	11.057	45.25	
GDE-MA18-E	Valve Guides	11.057	48.7	



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-30-16LC	30	26	16mm for 5.5mm Lash Caps	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MM18BP-85-1T	Head Gaskets	85	1	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MMX5-H133	133	20 Full Float	21.85 Straight	48	21.85	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOVE DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MA8350-N4													
83.5	0.5	8.6:1	-4	50	30.5	85	R	133	20	4032	293	GNH8350	T/N
PART NUMBER: P4-MA8350-P2													
83.5	0.5	9.5:1	2.5	50	30.5	85	R	133	20	4032	311	GNH8350	T/N
PART NUMBER: P4-MA8350-P10													
83.5	0.5	11:1	10.5	50	30.5	85	R	133	20	4032	320	GNH8350	A/N
PART NUMBER: P4-MA84-N4													
84	1	8.7:1	-4	50	30.5	85	R	133	20	4032	296	GNH8400	T/N
PART NUMBER: P4-MA84-CR9													
84	1	9:1	-4	50	30.5	85	R	133	20	4032	317	GNH8400	T/N
PART NUMBER: P4-MA84-P2													
84	1	9.5:1	2.5	50	30.5	85	R	133	20	4032	317	GNH8400	T/N
PART NUMBER: P4-MA84-P10													
84	1	11:1	10.5	50	30.5	85	R	133	20	4032	CALL	GNH8400	A/N
PART NUMBER: P4-MA85-N3													
85	2	9:1	-3.5	50	30.5	85	R	133	20	4032	CALL	GMH8500	T/N
PART NUMBER: P4-MA85-P10													
85	2	11:1	10	50	30.5	85	R	133	20	4032	CALL	GNH8500	A/N
PART NUMBER: P4-MA855-N3													
85.5	2.5	9:1	-3.5	50	30.5	85	R	133	20	4032	CALL	SWM 31071-2	T/N
PART NUMBER: P4-MA855-P8													
85.5	2.5	11:1	8.8	50	30.5	85	R	133	20	4032	CALL	GNH8550	A/N



Mazda

MZR 2.0L / 2.3L / 2.5L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MAIVN-2301D	Intake Valve	STD	35	5.48	103.4	SS /Black Nitride	Single Groove
MAIVN-2301F	Intake Valve	STD	35	5.48	103.4	SS /Black Nitride	Single Groove
MAIVN-2304D	Intake Valve	OS	36	5.48	103.4	SS /Black Nitride	Single Groove
MAIVN-2304F	Intake Valve	OS	36	5.48	103.4	SS /Black Nitride	Single Groove
MAIVN-2306	Intake Valve	OS	36.75	5.48	103.4	SS /Black Nitride	Single Groove
MAIVN-2308D	Intake Valve	OS	37.5	5.48	103.4	SS /Black Nitride	Single Groove
MAEVN-2301D	Exhaust Valve	STD	30	5.45	103.4	SS /Black Nitride	Single Groove
FEVI-2501F-HS	Exhaust Valve	STD	30	5.45	103.4	Sodium Filled Inconel	Single Groove
MAEVN-2301F	Exhaust Valve	STD	30	5.45	103.4	SS /Black Nitride	Single Groove
MAEVI-2301D	Exhaust Valve	STD	30	5.45	103.4	Inconel-Nimonic	Single Groove
MAEVN-2304F	Exhaust Valve	OS	31	5.45	103.4	SS /Black Nitride	Single Groove
MAEVI-2304D	Exhaust Valve	OS	31	5.45	103.4	Inconel-Nimonic	Single Groove
MAEVI-2304	Exhaust Valve	OS	31	5.45	103.4	Inconel-Nimonic	Single Groove
MAEVI-2306	Exhaust Valve	OS	32	5.45	103.4	Inconel-Nimonic	Single Groove
MAEVI-2304-6MM-HS	Exhaust Valve	OS	31	5.95	105.9	Sodium Filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS-DUR-DS										
27.5	20			55lbs @35mm	150lbs @10mm	14.3	20.7	9.6	SPR-TS1015-SI	RET-TS5.5/T1	SEAT-DUR1	
PART NUMBER:		SPRK-TS-DUR-D2										
27.5	20	20	15.2	70lbs @36.2mm	190lbs @10mm	13	20.7	12.1	SPR-TS1015	RET-TS5.5/T1	SEAT-DUR2	
PART NUMBER:		SPRK-TS-DUR-D1										
27.5	20	20	15.2	83lbs @35mm	208lbs @10mm	12.5	20.7	12.1	SPR-TS1015	RET-TS5.5/T1	SEAT-DUR1	
PART NUMBER:		SPRK-FE20BE										
24.3	17.5	21.2	14.4	67lbs @37.9mm	144 lbs @10mm	12.8	23.2	7.7	SPR-FE20BE	OEM	OEM	
PART NUMBER:		SPRK-FE20BE -2										
24	17.2	21	14.2	78lbs @37.9mm	150lbs @10mm	12	23	7.25	SPR-TS/DUR-BE0	OEM	OEM	
PART NUMBER:		SPRK-TS/DUR-BE0										
27.7	19.7	23.2	15.2	60lbs @35.5mm	164lbs @10mm	13	21.8	10.4	SPR-TS/DUR-BE0	RET-TS5.5/T1F-BE	SEAT-DUR1	
PART NUMBER:		SPRK-TS/DUR-BE1										
27.7	19.7	23.2	15.2	70lbs @35.5mm	197lbs @10mm	12.5	21.8	12.7	SPR-TS/DUR-BE1	RET-TS5.5/EX-BE	SEAT-DUR1	
PART NUMBER:		SPRK-TS/DUR-BE2										
27.7	19.7	23.2	15.2	82lbs @34.5mm	209lbs @10mm	11.75	21.8	12.7	SPR-TS/DUR-BE2	RET-TS55/EX-BE	SEAT-DUR1	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-DUR16	Valve Guides	11.05	39	For 5mm valves only
GDE-DUR16-6MM	Valve Guides	11.05	39	For 6mm valves only

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45 - 3.50mm	



COMPONENTS

PART NUMBER	NAME	NOTES
VSI-D5.5E	Valve Seals	
VSI-D5.5E-16	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MZR20-89-055T	Head Gaskets	89	0.55	MLS
HG-MZR20-89-075T	Head Gaskets	89	0.75	MLS
HG-MZR20-89-1T	Head Gaskets	89	1	MLS
HG-MZR20-89-1.3T	Head Gaskets	89	1.3	MLS
HG-MZR20-90-075T	Head Gaskets	90	0.75	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FDUR23-H154.8	154.8	21	18.9	53.02	21.82	552.9

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-DU875-N6												
87.5	STD	10.9:1	-6	42	28.5	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-N2												
87.5	STD	11.6:1	-2	42	28.5	83.1	X	154.78	21	300	GNH8750	A/N
PART NUMBER: P4-DU875-N6												
87.5	STD	12.5:1	1.5	42	28.5	83.1	X	154.78	21	303	GNH8750	A/N
PART NUMBER: P4-DU875-P7												
87.5	STD	13.6:1	6.1	42	28.5	83.1	X	154.78	21	295	GNH8750	A/N
PART NUMBER: P4-DU875-N20												
87.5	STD	9:1	-20	42	28.5	83.1	X	154.78	21	277	GNH8750	T/N
PART NUMBER: P4-DU88-N20												
88	0.5	9.1:1	-20	42	28.5	83.1	X	154.78	21	283	GNH8800	T/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-DU88-N6												
88	0.5	11:1	-6	42	28.5	83.1	X	154.78	21	303	GNH8800	A/N
PART NUMBER: P4-DU88-N20												
88	0.5	11.6:1	-2	42	28.5	83.1	X	154.78	21	303	GNH8800	A/N
PART NUMBER: P4-DU88-P1												
88	0.5	12.5:1	1	42	28.5	83.1	X	154.78	21	308	GNH8800	A/N
PART NUMBER: P4-DU88-P7												
88	0.5	13.7:1	6.1	42	28.5	83.1	X	154.78	21	303	GNH8800	A/N
PART NUMBER: P4-DU8850-N7												
88.5	1	11:1	-7	42	28.5	83.1	X	154.78	21	303	GNH8850	T/N
PART NUMBER: P4-DU8850-P1												
88.5	1	12.5:1	1	42	28.5	83.1	X	154.78	21	308	GNH8850	A/N
PART NUMBER: P4-DU89-N20												
89	1.5	9.2:1	-20	42	28.5	83.1	X	154.78	21	303	GNH8900	A/N
PART NUMBER: P4-DU89-N7												
89	1.5	11:1	-7	42	28.5	83.1	X	154.78	21	303	GNH8900	A/N
PART NUMBER: P4-DU89-P1												
89.5	2	12.8:1	0.5	42	28.5	83.1	X	154.78	21	303	GNH8900	A/N
PART NUMBER: P4-DU8950-N20												
89.5	2	9.3:1	-20	42	28.5	83.1	X	154.78	21	330	GNH8950	A/N
PART NUMBER: P4-DU8950-N7												
89.5	2	11:1	-7	42	28.5	83.1	X	154.78	21	330	GNH8950	A/N
PART NUMBER: P4-DU90-N2												
90	2.5	12.2:1	-2	42	28.5	83.1	X	154.78	21	330	GNH9000	A/N
PART NUMBER: P4-DU90-N3												
91	3.5	12.3:1	-2	42	28.5	83.1	X	154.78	21	324	GNH9000	A/N



Mazda

PROTÉGÉ ; MX6 ; 626 ; PROBE / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MAIVN-2002	Intake Valve	OS	32.50	5.97	89.9	SS /Black Nitride	Single Groove
MAEVI-2002	Exhaust Valve	OS	28.6	5.96	89.9	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MP20S										
25	18	Single	Single	58lbs @34.8mm	142lbs @11mm	13.8	21	7.6	SPR-TC25S	RET-2500/T1		
PART NUMBER:		SPRK-TC25D-MP										
25	18	18	13	85lbs @34.8mm	223lbs @11mm	13.8	21/17	12.6	SPR-TC25D	RET-2500/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MA20FS	Valve Guides			

COMPONENTS

PART NUMBER	NAME	NOTES
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	
VS-T6SM	Valve Seals	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-30/15.5LC+LC-55				Optional

Mini

R53

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
MCIVN-1004T	Intake Valve	STD	30.2	5.94	118.37	SS /Black Nitride	Triple Groove	
MCIVN-1005S	Intake Valve	OS	30.7	5.94	118.37	SS /Black Nitride	Single Groove	Single groove valves can not be used with OEM retainers
MCIVN-1008S	Intake Valve	OS	32	5.94	118.37	SS /Black Nitride	Single Groove	Single groove valves can not be used with OEM retainers
MCEVN-1004T	Exhaust Valve	STD	23.2	5.92	118.37	SS /Black Nitride	Triple Groove	
MCEVI-1007FS	Exhaust Valve	OS	24.2	5.92	118.37	Inconel-Nimonic	Single Groove	Single groove valves can not be used with OEM retainers
MCEVN-1010FS	Exhaust Valve	OS	25.2	5.92	118.37	SS /Black Nitride	Single Groove	Single groove valves can not be used with OEM retainers
MCEVI-1010FS	Exhaust Valve	OS	25.5	5.92	118.37	Inconel-Nimonic	Single Groove	Single groove valves can not be used with OEM retainers
MCEVI-1012S	Exhaust Valve	OS	27	5.92	118.37	Inconel-Nimonic	Single Groove	Single groove valves can not be used with OEM retainers

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1015-MC										
27.5	20	20	15.2	76lbs @34.8mm	198lbs @10mm	14	20.7	12.1	SPR-TS1015	RET-TS-60MA2	SEAT-MC1015D	
PART NUMBER:		SPRK-TS1015/MC-2										
27.5	20	20	15.2	76lbs @34.8mm	198lbs @10mm	14	20.7	12.1	SPR-TS1015-MC-2	RET-TS-60MA2	SEAT-MC1015D	KPR-6T
PART NUMBER:		SPRK-EC3025D/MC										
26.6	19.6	19.4	14.2	70lbs @34.2mm	202lbs @10mm	14.1	20.7	12.8	SPR-EC3025D/MC	RET-EC3020T1	SEAT-MC1015D	KPR-6S/7
PART NUMBER:		SPRK-EC3027D/MC										
26.6	19.6	19.4	14.2	95lbs @34.2mm	202lbs @10mm	14.1	20.7	11.3	SPR-EC3027D/MC	RET-M65-TBE	SEAT-SS2717-2	KPR-6S/7



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-HM1007BE/MC										
28	18.8	24.2	14.2	75lbs @39mm	203lbs @10mm	16.2	22.8	12.8	SPR-HM1007BE/MC	RET-M65-TBE	SEAT-SS2717-2	
PART NUMBER:		SPRK-HM1007BE/MC2										
28	18.8	24.2	14.2	75lbs @39mm	203lbs @10mm	16.2	22.8	12.8	SPR-HM1007BE/MC2	RET-EC3020T1	SEAT-SS2717-2	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MIN-R53	Valve Guides	11.06	42	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
KPR-6T-ST-32	Valve Locks	
VSI-M6E	Valve Seals	
VSI-M6E-16	Valve Seals	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MIN53-775-N1													
77.5	0.5	8.3	-1 (STD)	33	26.5	85.8	R	STD	21	4032	211	GNH7750	T/N
PART NUMBER: P4-MIN53-78-N1													
78	1	8.3	-1 (STD)	33	26.5	85.8	R	STD	21	4032	215	GNH7800	T/N

Mini

R56 N14 S / N14 JWC / N18 S - 1.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MCIVN-1200S	Intake Valve	STD	28.8	4.96	105.8	SS /Black Nitride	Single Groove
MCIVN-1201S	Intake Valve	OS	29.8	4.96	105.8	SS /Black Nitride	Single Groove
MCIVN-1301S	Intake Valve	STD	29.8	4.96	95	SS /Black Nitride	Single Groove
MCEVI-1200-HS	Exhaust Valve	STD	26.2	4.95	110.15	Sodium filled Inconel	Single Groove
MCEVI-1202-HS	Exhaust Valve	OS	27	4.95	110.15	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MC56BE										
23.5	16.5	19.3	12.3	70lbs @33.6mm	163lbs @10mm	11.4	22.2	9.7	SPR-MC56BE	RET-MC56/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MIN-R56-STD	Valve Guides	9.022	44.9	
GDE-MIN-R56-0S	Valve Guides	9.06	44.9	Oversized

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	
VSI-MIN-R56	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MCR56-78-0.9T	Head Gaskets	78.5	0.9	MLS



CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MIN56-H138.54	138.54	20	20	48	20.88	472

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
R56 N14 - N18 1.6L 16V TURBO ENGINE 2011+													
PART NUMBER: P4-MIN56-N14-77-CR10.5													
77	STD	10.5	STD	37.6	28.7	85.8	X	138.5	20	4032	260	GBH7700	T/N
PART NUMBER: P4-MIN56-N14-77.5-CR10.5													
77.5	0.5	10.5	STD	37.6	28.7	85.8	X	138.5	20	4032	264	GNH7550	T/N
R56 N14 - N18 JCW 1.6L 16V TURBO ENGINE 2011+													
PART NUMBER: P4-MIN56-N14-77-CR10													
77	STD	10	STD	37.6	27.5	85.8	X	138.5	20	4032	245	GBH7700	T/N
PART NUMBER: P4-MIN56-N14-77.5-CR10													
77.5	0.5	10	STD	37.6	27.5	85.8	X	138.5	20	4032	251	GNH7550	T/N
R56 N14 - N18 1.6L 16V LOW COMPRESSION													
PART NUMBER: P4-MIN56-N14-77-CR9.5													
77	STD	9.5	-5.5	37.6	28.5	85.8	X	138.5	20	4032	259	GBH7700	T/N
PART NUMBER: P4-MIN56-N14-77.5-CR9.5													
77.5	0.5	9.5	-5.5	37.6	28.5	85.8	X	138.5	20	4032	264	GNH7550	T/N

Mini

B48 / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MCIVN-1400S	Intake Valve	STD	30.1	4.96	99.5	SS /Black Nitride	Single Groove
MCEVI-1400S-HS	Exhaust Valve	STD	28.5	5.95	100.1	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MCB48										
24.4	17.6	21	14.2	75lbs @37mm	155lbs @10mm	12.2	23.2	8	SPR-FE20BE	RET-BMB48/TE		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-BM48-I	Valve Guides	10.045	42	
GDE-BM48-E6	Valve Guides	10.045	47	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-BM50-I	Valve Seals	
VSI-BM50-I-8	Valve Seals	
VSI-BM60-E	Valve Seals	
VSI-BM60-E-8	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MINB48-H148.3	148	22	21	53.66	23.9	472



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MINB48-82-CR10.2													
82	STD	10.2:1	STD	36	33.2	94.6	X	148.3	22	4032	298	GNH-8200	T/N
PART NUMBER: P4-MINB48-82-CR10.2-B													
82	STD	10.2:1	STD	36	33.2	94.6	X	148.3	22	2618	298	GNH-8200	T/N
PART NUMBER: P4-MINB48-82-CR10.2													
82	STD	11:1	STD	36	33.2	94.6	X	148.3	22	4032	298	GNH-8200	T/N
PART NUMBER: P4-MINB48-82-CR10.2													
82.5	0.5	11:1	STD	36	33.2	94.6	X	148.3	22	4032	298	GNH-8200	T/N

Mitsubishi

4G63 / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MIVN-1007	Intake Valve	STD	34	6.57	109.6	SS /Black Nitride	Single Groove
MIVN-1008	Intake Valve	OS	34.5	6.57	109.6	SS /Black Nitride	Single Groove
MIVN-1009	Intake Valve	OS	35	6.57	109.6	SS /Black Nitride	Single Groove
MIVN-1010	Intake Valve	OS	36	6.57	109.6	SS /Black Nitride	Single Groove
MEVN-1007	Exhaust Valve	STD	30.5	6.54	109.66	SS /Black Nitride	Single Groove
MEVN-1008	Exhaust Valve	OS	31	6.54	109.66	SS /Black Nitride	Single Groove
MEVN-1009	Exhaust Valve	OS	31.5	6.54	109.66	SS /Black Nitride	Single Groove
MEVI-1007	Exhaust Valve	STD	30.5	6.54	109.66	Inconel-Nimonic	Single Groove
MEVI-1008	Exhaust Valve	OS	31	6.54	109.66	Inconel-Nimonic	Single Groove
MEVI-1009	Exhaust Valve	OS	31.5	6.54	109.66	Inconel-Nimonic	Single Groove
MEVI-1010	Exhaust Valve	OS	32.5	6.54	109.66	Inconel-Nimonic	Single Groove
MEVI-1009-HS	Exhaust Valve	OS	31.5	6.54	109.66	Sodium filled Inconel	Single Groove
MIVT-1010	Intake Valve	OS	36	6.57	108.1	Titanium	Single Groove
MIVT-1009	Exhaust Valve	OS	32	6.54	108.1	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/ MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-M1007S									
28.1	20	Single	Single	76lbs @39.6mm	200lbs @11.5mm	14.9	24.7	10.5	SPR- M1007S	RET-M65/T1	
PART NUMBER:		SPRK-M1005D									
28.1	20	20	15.2	80lbs @39.6mm	200lbs @11.5mm	16	23.5	10.5	SPR- M1005D	RET-M65/T1	SEAT-M1007D
PART NUMBER:		SPRK-M1007D									
28.1	20	20	15.2	92lbs @39.6mm	235lbs @11.5mm	14.9	24.7	12.5	SPR- M1007D	RET-M65/T1	SEAT-M1007D
PART NUMBER:		SPRK-M1007D-2									
28.1	20	20	15.2	100lbs @39mm	243lbs @11.5mm	14.3	24.7	12.5	SPR- M1007D	RET-M65/TSTD	SEAT-M1007D
PART NUMBER:		SPRK-M1007D-3									
28.1	20	20	15.2	110lbs @38.1mm	253lbs @11.5mm	13.4	24.7	12.5	SPR- M1007D	RET-M65/TSTD	SEAT-M1007D/FP
PART NUMBER:		SPRK-M1007BE-1									
28	18.8	24.2	14.5	80lbs @38.6mm	230lbs @11.5mm	15.3	22.8	12.8	SPR- M1007BE	RET-M65-TBE	SEAT-M65BE-1
PART NUMBER:		SPRK-M1007BE-2									
28	18.8	24.2	14.5	98lbs @37.2mm	248lbs @11.5mm	14	22.8	12.8	SPR- M1007BE	RET-M65-TBE	SEAT-M65BE-2
PART NUMBER:		SPRK-M1015-EX-S									
27.50	20	24.2	Single	57lbs @34.8mm	144lbs @10mm	14.5	20.7	7	SPR- M1007BE	RET-TS5.5/T1	SEAT-M1015-2
PART NUMBER:		SPRK-M1012-EX1-BE (Beehive)									
27.70	19.7	23.2	15.2	77lbs @34.5mm	192lbs @11.5mm	13	21.5	10	SPR- M1007BE	RET-TS5.5-EX-B	SEAT-M1015-2
PART NUMBER:		SPRK-M1012-EX1									
27.50	20	20	15.2	75lbs @34.5mm	185lbs @11.5mm	14.5	20	9.6	SPR- M1007BE	RET-TS55-T1EX	SEAT-M1015-2
PART NUMBER:		SPR-M1015-EX2									
27.50	20	20	15.2	75lbs @35.3mm	215lbs @11.5mm	14.50	20.7	12.1	SPR- M1007BE	RET-TS55-T1EX	SEAT-M1015-1
PART NUMBER:		SPRK-M1012-EX3									
27.50	20	20	15.2	85lbs @34.5mm	228lbs @11.5mm	13.8	20.7	12.1	SPR- M1007BE	RET-TS55-T1EX	SEAT-M1015-2



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MI66-I	Valve Guides	12.1	45.4	
GDE-MI66-E	Valve Guides	12.1	50.5	
GDE-MI66-STI	Valve Guides	12.08	45.5	
GDE-MI66-STE	Valve Guides	12.08	50.5	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-H6.6-I	Valve Seals	
VS-H6.6-E	Valve Seals	
VS-M6.6-I	Valve Seals	
VS-M6.6-E	Valve Seals	
RET-M65-ST	Steel Retainer	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MI4G63-86.3-1.3T	Head Gaskets	86.3	1.3	MLS
HG-MI4G63-86.3-1T	Head Gaskets	86.3	1	MLS
HG-MI4G63-9-86.3-1T	Head Gaskets	86.3	1	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MI4G63-H150	150	20	26.36	48	26.36	586.1

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MI2-85-N15													
85	STD	8.3:1	-15	47	35	88	R	150	22	4032	295	GNH8500	
PART NUMBER: P4-MI2-85-N9													
85	STD	9:1	-9.5	47	35	88	R	150	22	4032	300	GNH8500	
PART NUMBER: P4-MI2-8550-N9													
85.5	0.5	9:1	-9.5	47	35	88	R	150	22	4032	303	GNH8550	
PART NUMBER: P4-MI2-8550-N15													
85.5	0.5	8.3:1	-15	47	35	88	R	150	22	4032	299	GNH8550	
PART NUMBER: P4-MI2-86-N15													
85.5	1	8.3:1	-15	47	35	88	R	150	22	4032	318	GNH8600	



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4B11 DOHC TURBO / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MIVN-1017	Intake Valve	STD	35	5.47	113.25	SS /Black Nitride	Single Groove
MIVN-1019	Intake Valve	OS	36	5.47	113.25	SS /Black Nitride	Single Groove
MEVI-1017	Exhaust Valve	STD	29	5.46	105.9	Inconel-Nimonic	Single Groove
MEVI-1019	Exhaust Valve	OS	30	5.46	105.9	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-M1012-EX1-BE										
27.7	19.7	23.2	15.2	67lbs @35.5mm	182lbs @11.5mm	13	21.5	10	SPR-M1012-EX1-BE	RET-TS5.5/T9F-BE	SEAT-M1015-2	
PART NUMBER:		SPRK-M1012-EX1										
27.5	20	20	15.2	75lbs @34.5mm	185lbs @11.5mm	14.5	20	9.6	SPR-M1012-EX1	RET-TS55/T1EX	SEAT-M1015-2	
PART NUMBER:		SPRK-M1015-EX2										
27.5	20	20	15.2	75lbs @35.3mm	215lbs @11.5mm	14.5	20.7	12.1	SPR-M1015-EX2	RET-TS55/T1EX	SEAT-M1015-1	
PART NUMBER:		SPRK-M1015-EX3										
27.5	20	20	15.2	85lbs @34.5mm	228lbs @11.5mm	13.8	20.7	12.1	SPR-M1015-EX3	RET-TS55/T1EX	SEAT-M1015-2	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MEVOX-OS	Valve Guides	11.28	43.65	
GDE-MEVOX	Valve Guides	11.06	43.65	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-3.10	32	24.5	3.1	
CF-32-3.25	32	24.5	3.25	
CF-32-3.35	32	24.5	3.35	
CF-32-3.55	32	24.5	3.55	
CF-32-3.70	32	24.5	3.7	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-M5.5V	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MI4B11-87.5-1T	Head Gaskets	87.5	1	MLS

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MIX86-CR9													
86	STD	9:1	-4.6	49	33.3	86	R	143.75	23	4032	335	GNH8600	T/N
PART NUMBER: P4-MIX865-CR9													
86.5	0.5	9:1	-4.6	49	33.3	86	R	143.75	23	4032	342	GNH8650	T/N



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420A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MIVN-1420	Intake Valve	STD	30.7	5.96	111.7	SS /Black Nitride	Single Groove
MEVN-1420	Exhaust Valve	STD	30.7	5.95	110	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-NE									
27.5	20	20	15.2	84lbs @34.6mm	202lbs @24.6mm	13.9	20.7	12.1	SPR-TS1015	RET-M60-T1	SEAT-EC1015

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-M6E	Valve Seals	

Mitsubishi

6G72 DOHC / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MIVN-1012	Intake Valve	OS	36	6.57	106.35	SS /Black Nitride	Single Groove
MEVN-1011	Exhaust Valve	OS	31	6.54	105.5	SS /Black Nitride	Single Groove
MEVI-1011	Exhaust Valve	OS	31	6.54	105.5	Inconel-Nimonic	Single Groove
MEVI-1012	Exhaust Valve	OS	31.5	6.54	105.5	Inconel-Nimonic	Single Groove
MEVN-1013	Exhaust Valve	OS	32.5	6.54	105.5	SS /Black Nitride	Single Groove
MEVI-1013	Exhaust Valve	OS	32.5	6.54	105.5	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-M1007S-6G72								
28.1	20	Single	Single	100lbs @37.15mm	224lbs @11.5mm	12	24.7	10.5	SPR-M1007S	RET-M65/T1
PART NUMBER:		SPRK-M1005S-6G72								
28.1	20	Single	Single	92lbs @37.15mm	207lbs @11.5mm	12.2	23.5	10	SPR-M1005S	RET-M65/T1
PART NUMBER:		SPRK-M1007BE-3000								
28	18.8	24.2	14.5	92lbs @37.15mm	224lbs @11.5mm	12.5	22.8	12.7	SPR-M1007BE	RET-M65/TBE

Mitsubishi

6G72 V6 SOHC / 3.0L

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-M2521-T1										
26.4	19.3	19.3	14.5	75lbs @41.36mm	178lbs @10mm	16.6	24.7	10	SPR-M2521/T1	RET-M2521/T1	SEAT-TS-SUB4	



Nissan

SR20 DE / SR20 DET

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1005	Intake Valve	STD	34.15	5.97	101.4	SS /Black Nitride	Single Groove
NIVN-1006	Intake Valve	OS	34.65	5.97	101.4	SS /Black Nitride	Single Groove
NIVN-1007	Intake Valve	OS	35.15	5.97	101.4	SS /Black Nitride	Single Groove
NEVN-1006	Exhaust Valve	OS	30.65	5.94	102.4	SS /Black Nitride	Single Groove
NEVI-1007	Exhaust Valve	OS	31.15	5.94	102.4	Inconel-Nimonic	Single Groove
NEVI-1005/7	Exhaust Valve	STD	30.15	6.94	102.4	Inconel-Nimonic	Single Groove
NEVI-1007/7	Exhaust Valve	OS	31.15	6.94	102.4	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1021S-SR20									
30	21.8	Single	Single	68lbs @40.5mm	160lbs @11.5mm	15	22.7	9.3	SPR-H1021S	RET-NSR20/T1	
PART NUMBER:		SPRK-1022D-SR20									
30	21.8	20.5	15.5	90lbs @40.5mm	202lbs @11.5mm	16	19.5	11.2	SPR-H1022D	RET-NSR20/T1	SEAT-H/N240
PART NUMBER:		SPRK-H1021D-SR20									
30	21.8	21.3	15.5	106lbs @40.5mm	238lbs @11.5mm	15.5	25	13.2	SPR-H1021D	RET-NSR20/T1	SEAT-H/N240

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NSR6-I	Valve Guides	10.03	40	
GDE-NSR6-E	Valve Guides	10.03	43	
GDE-NSR6-ET	Valve Guides	11.03	43	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-NSR20-87.5-1T-VVL	Head Gaskets	87.5	1	MLS	W/ 1 oil hole
HG-NSR20-88.5-0.85T-FWD	Head Gaskets	88.5	0.85	MLS	No Extra oil Holes
HG-NSR20-88.5-1T-RWD	Head Gaskets	88.5	1	MLS	W/ 2 oil holes

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-NSR20-H136.5	136.25	22	23.6	51	22.75	550.3

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-NSR20-86.5-CR9-H13													
86.5	0.5	9.5:1	-10	42	32	86	R	136.3	22	4032	303	GNH8650	T/N
PART NUMBER: P4-NSR20-87-CR9-H13													
87	1	9.6:1	-10	42	32	86	R	136.3	22	4032	306	GNH8700	T/N
PART NUMBER: P4-NSR20-87.5-CR9-H13													
87.5	1.5	9.7:1	-10	42	32	86	R	136.3	22	4032	307	GNH8750	T/N



Nissan

SR20 VE DOHC / 6MM VALVE STEM

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1005-VE	Intake Valve	STD	34.15	5.97	99.7	SS /Black Nitride	Single Groove
NIVN-1007-VE	Intake Valve	OS	35.15	5.97	99.7	SS /Black Nitride	Single Groove
NIVC-1008-VE	Intake Valve	OS	36	5.97	99.7	Chrome	Single Groove
NEVI-1004-VE	Exhaust Valve	STD	29.15	5.97	100.5	Inconel-Nimonic	Single Groove
NEVI-1007-VE	Exhaust Valve	OS	31.15	5.97	100.5	Inconel-Nimonic	Single Groove
NEVI-1008-VE	Exhaust Valve	OS	31.15	5.97	100.5	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-2035-2022										
30	21.8	20.5	15.5	83lbs @37.5mm	180lbs @10mm	17.4	17.4/19	9.4	SPR-2035-2022	RET-NSR20/T1		
PART NUMBER:		SPRK-H1022D-VE										
30	21.8	20.5	15.5	115lbs @37.5mm	227lbs @10mm	15.7	19.5/15.7	11.2	SPR-H1022D	RET-NSR20/T1		
PART NUMBER:		SPRK-H1021D-VE										
30	21.8	21.3	15.5	138lbs @37.5mm	270lbs @10mm	13.5	22.7/19.5	13.2	SPR-H021D	RET-NSR20/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NSR6-I	Valve Guides	10.03	40	
GDE-NSR6-E	Valve Guides	10.03	43	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	
SEAT-SR20-6	Seat Locator	

Nissan

SR20 VE DOHC / 5.5MM VALVE STEM

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVC-1007-VE-5.5	Intake Valve	OS	35.15	5.47	99.7	SS / Black Nitride	Single Groove
NEVI-1007-VE-5.5	Exhaust Valve	OS	31.15	5.46	100.5	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-2035-2022-P12								
30	21.8	20.5	15.5	83lbs @37.5mm	180lbs @10mm	17.4	17.4/19	9.4	SPR-2035-2022-P12	RET-NSR20/T1
PART NUMBER:		SPRK-H1022D-P12								
30	21.8	20.5	15.5	115lbs @37.5mm	227lbs @10mm	15.7	19.5/15.7	11.2	SPR-H1022D-P12	RET-NSR20/T1
PART NUMBER:		SPRK-H1021D-P12								
30	21.8	21.3	15.5	138lbs @37.5mm	270lbs @10mm	13.5	22.7/19.5	13.2	SPR-H021D-P12	RET-NSR20/T1

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NSR6-I	Valve Guides	10.03	40	
GDE-NSR6-E	Valve Guides	10.03	43	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	
SEAT-SR20-6	Seat Locator	



Nissan

GTI-R / RNN14

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1007GTIR	Intake Valve	OS	35.15	6.94	103	SS /Black Nitride	Single Groove
NEVI-1007-7GTIR	Exhaust Valve	OS	35.15	6.94	103	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1005D-GTIR										
29.65	21.85	20.5	15.5	75lbs @38.5mm	190lbs @10mm	17** (12mm)	20.7	11.5	SPR-H1005D	RET-NSR20/T1		

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N7E	Valve Seals	

Nissan

VG30D DOHC / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1017	Intake Valve	OS	34.5	5.97	103.15	SS /Black Nitride	Single Groove
NEVI-1017	Exhaust Valve	OS	30	5.97	103.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-2									
27.5	20	20	15.2	84lbs @35mm	202lbs @10mm	12	20.7	12.7	SPR-TS1015	RET-NVG1015/T1	SEAT-TS1015
PART NUMBER:		SPRK-TS1012-2									
27.5	20	20	15.2	74lbs @35mm	192lbs @10mm	12	20.7	12.7	SPR-TS1015	RET-NVG1015/T1	SEAT-TS1015

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	



Nissan

280Z / 2.8L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-4405	Intake Valve	STD	44	7.96	116.65	SS /Black Nitride	Single Groove
NEVN-3580	Exhaust Valve	STD	30	7.95	117.35	SS /Black Nitride	Single Groove

Nissan

KA24DE DOHC / 2.4L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1009	Intake Valve	STD	36.6	6.97	101.32	SS /Black Nitride	Single Groove
NIVN-1010	Intake Valve	OS	37.1	6.97	101.32	SS /Black Nitride	Single Groove
NEVN-1010	Exhaust Valve	OS	31.8	6.94	99	SS /Black Nitride	Single Groove
NEVI-1011	Exhaust Valve	OS	32	6.94	99	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1000D-240										
29.65	21.85	20.5	15.5	96lbs @34.85mm	240lbs @11.8mm	14	20.7	12.8	SPR-H1000D	RET-H70/T1	SEAT-H/N240	
PART NUMBER:		SPRK-H100DR-240										
30.2	22.2	22.2	16.8	84lbs @34.85mm	225lbs @11.8mm	14.2	20.5	12	SPR-H100DR	RET-H70/T1	SEAT-H/N240	
PART NUMBER:		SPRK-H1002D-240										
29.05	21.85	20.5	15.5	73lbs @34.85mm	225lbs @11.8mm	15.3	19.5	10	SPR-H1002D	RET-H70/T1	SEAT-H/N240	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NKA24-7-EI	Valve Guides	11.03	39.6	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-3.5+	34	26	3.5mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N7E	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-NK24-H165	165	21	25.4	53	24.7	602.5

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-N8900-N11													
89	STD	10.5:1	-11	46	34	96	R	165	21	4032	395	GNH8900	A/N/T
PART NUMBER: P4-N895-N29													
89.5	0.5	8.4:1	-29	46	34	96	R	165	21	4032	395	GNH8950	T/N
PART NUMBER: P4-N895-N27													
89.5	0.5	8.6:1	-27	46	34	96	R	165	21	4032	395	GNH8950	T/N
PART NUMBER: P4-N895-N23													
89.5	0.5	9:1	-23	46	34	96	R	165	21	4032	389	GNH8950	T/N
PART NUMBER: P4-N895-N11													
89.5	0.5	10.5:1	-11	46	34	96	R	165	21	4032	389	GNH8950	A/N/T
PART NUMBER: P4-N900-N27													
90	1	8.6:1	-27	46	34	96	R	165	21	4032	CALL	GNH9000	T/N



Nissan

RB20 DOHC HYDRAULIC LIFTER

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1042	Intake Valve	OS	31.1	5.97	90.7	SS /Black Nitride	Single Groove
NEVI-1042	Exhaust Valve	OS	27.5	5.94	89.9	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-2081-RB20										
27.5	20	Single	Single	70lbs @32.8mm	156lbs @9mm	12.1	20.7	9.6	SPR-TS1015-SI	RET-NVG1015/T1	SEAT SS-2820-2.2	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
KPR-6N-6-ST-32	Valve Locks	
VS-N6I	Valve Seals	
VS-N6I-8	Valve Seals	
VS-N6E	Valve Seals	
VS-N6E-8	Valve Seals	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-RB20-79-CR8.5-H13													
78.5	0.5	8.5:1	-1.3		32	69.7	R		21	4032	277	GNH7900	T/N
PART NUMBER: P6-RB20-78.5-CR8.5-H13													
79	1	8.5:1	-1.3		32	69.7	R		21	4032	285	GNH7850	T/N

Nissan

RB20 DOHC SOLID LIFTER CONVERSION

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1042-SL	Intake Valve	OS	31	5.97	107.5	SS /Black Nitride	Single Groove
NEVI-1042-SL	Exhaust Valve	OS	27.5	5.94	106.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-M1005-RB20										
28	20	20	15.2	84lbs @39.5mm	197lbs @11mm	16	23.5	10.3	SPR-M1005	RET-NVG1015/T1	SEAT-RB25-E	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45- 3.50mm	
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45- 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
KPR-6N-6-ST-48	Valve Locks	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMES DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-RB20-79-CR8.5-H13													
78.5	0.5	8.5:1	-1.3		32	69.7	R		21	4032	277	GNH7900	T/N
PART NUMBER: P6-RB20-78.5-CR8.5-H13													
79	1	8.5:1	-1.3		32	69.7	R		21	4032	285	GNH7850	T/N



Nissan

RB25 DOHC HYDRAULIC LIFTER

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1052	Intake Valve	OS	35.15	5.97	86.75	SS /Black Nitride	Single Groove
NEVI-1052	Exhaust Valve	OS	30.65	5.94	89	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-1012S-RB25										
27.5	20	Single	Single	78lbs @30.6mm	143lbs @9mm	10.6	20	7.3	SPR-TS1012	RET-NVG1015/T1	SS-2820-E	
PART NUMBER:		SPRK-2081-RB25										
27.5	20	Single	Single	85lbs @30.6mm	171lbs @9mm	9.9	20.7	9.6	SPR-TS1015-SI	RET-NVG1015/T1	SS-2820-E	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-RB25-86.5-CR9													
86.5	0.5	9:1	-15.5	64	31.5	71.7	R	121.5	21	4032	349	GNH8650	T/N

Nissan

RB25 DOHC SOLID LIFTER CONVERSION

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1052-SL	Intake Valve	OS	35.15	5.97	103.55	SS /Black Nitride	Single Groove
NEVI-1052-SL	Exhaust Valve	OS	30.65	5.94	105.8	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-RB25									
27.5	20	20	15.2	83lbs @35mm	216lbs @11mm	14.3	20.7	12.1	SPR-TS1015	RET-NVG1015/T1	SEAT-RB25-I(12)+SEAT-RB25-E(12)

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45- 3.50mm	
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45- 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	



PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-RB25-86.5-CR9													
86.5	0.5	9:1	-15.5	64	31.5	71.7	R	121.5	21	4032	349	GNH8650	T/N

Nissan

RB25 DOHC NEO (SOLID LIFTER)

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1052-NEO	Intake Valve	OS	35.15	5.97	104.15	SS /Black Nitride	Single Groove
NEVI-1052-NEO	Exhaust Valve	OS	30.65	5.96	97.6	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-M1007BE-RB25N												
28	18.8	24.2	14.5	78lbs @38.7mm	200lbs @10mm	15.3	22.8	12.8	SPR-M1007BE	RET-N55/TBE	SEAT-SS3030	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

Nissan

RB26 DOHC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1030	Intake Valve	STD	34.65	5.97	102.3	SS /Black Nitride	Single Groove
NIVN-1032	Intake Valve	OS	35.65	5.97	102.3	SS /Black Nitride	Single Groove
NIVN-1032-L	Intake Valve	OS	35.65	5.97	103.8 (tip+1.5mm)	SS /Black Nitride	Single Groove
NEVI-1030-7	Exhaust Valve	STD	30.15	6.94	101.2	Inconel-Nimonic	Single Groove
NEVI-1032-7	Exhaust Valve	OS	31.15	6.94	101.2	Inconel-Nimonic	Single Groove
NEVI-1032-7-L	Exhaust Valve	OS	31.15	6.94	102.7 (tip+1.5mm)	Inconel-Nimonic	Single Groove
NEVI-1032-7-HS	Exhaust Valve	OS	31.15	6.94	101.2	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-M1005S-RB									
28.1	20	Single	Single	62lbs @39.9mm	176lbs @11mm	16	23.5	10.35	SPR-M1005S	RET-NRB60/TS	SS-3025
PART NUMBER:		SPRK-M1007S-RB									
28.1	20	Single	Single	70lbs @40.7mm	188lbs @11mm	16	24.7	10.5	SPR-M1007S	RET-NRB60/TS	SS-3025
PART NUMBER:		SPRK-M1007D-RB									
28.1	20	20	15.5	In: 92lbs @40.7mm Ex: 82lbs @40.7mm	In: 232lbs @11mm Ex: 222lbs @11mm	15.3	24.7	12.5	SPR-M1007D	RET-NRB60/TS	Int: SEAT-TS1015, Exh: SEAT-TS1015/2
PART NUMBER:		SPRK-TS1015-RB26									
27.5	20	20	15.5	92lbs @33mm	225lbs @11mm	12.3	20.7	12.1	SPR-TS1015	RET-NRB60/TS	SEAT-RB26/TS9



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NSR6-I	Valve Guides			
GDE-NSR7-ET	Valve Guides			

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.78	31	28.5	2.78	
CF-31-3.0	31	24.8	3	
CF-31-3.78	31	25.5	3.78	
CF-31-4.20	31	25.5	4.2	
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45-3.50mm	
CF-31-4.80+	31	25.5	4.80mm + Shim 1.45mm-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N7E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-NRB26-87.5-1.2T	Head Gaskets	87.5	1.2	MLS	
HG-NRB26-87.5-1.5T	Head Gaskets	87.5	1.5	MLS	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-NRB26-H121.50	121.5	21	22.86	51	21.8	518.1

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-RB26-86.5-CR8.5-H13													
86.5	0.5	8.5:1	-15.5	70	30	73.7	R	121.5	21	4032	347	GNH8650	T/N
PART NUMBER: P6-RB26-87-CR85.5-H13													
87	1	8.5:1	-15.5	70	30	73.7	R	121.5	21	4032	355	GNH8700	T/N

Nissan

VQ35DET

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1025	Intake Valve	STD	37.15	5.96	96.6	SS /Black Nitride	Single Groove
NIVN-1028	Intake Valve	OS	38.15	5.96	99.6	SS /Black Nitride	Single Groove
NIVN-1028L	Intake Valve	OS	38.15	5.96	99.1	SS /Black Nitride	Single Groove
NEVI-1023F	Exhaust Valve	US	30.5	5.97	95 (+1)	Inconel-Nimonic	Single Groove
NEVI-1025F	Exhaust Valve	STD	31.35	5.97	94	Inconel-Nimonic	Single Groove
NEVN-1028	Exhaust Valve	OS	32.35	5.97	94	SS /Black Nitride	Single Groove
NEVI-1028F	Exhaust Valve	OS	32.35	5.97	94	Inconel-Nimonic	Single Groove
NEVI-1029F-V2	Exhaust Valve	OS	33.5	5.97	94	Inconel-Nimonic	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS2081-N35									
27.5	20	Single	Single	55lbs @35mm	150lbs @10mm	14.5	20.7	9.6	SPR-TS1015-SI	RET-TS5.5/T6	
PART NUMBER:		SPRK-TS1012-N35									
27.5	20	20	15.2	58lbs @36mm	153lbs @10mm	16	20.7	9.6	SPR-TS1012	RET-TS5.5/T8	SEAT-TS1015
PART NUMBER:		SPRK-TS1015-N35									
27.5	20	20	15.2	82lbs @35mm	202lbs @10mm	14.5	20.7	12.1	SPR-TS1015	RET-TS5.5/T8	SEAT-TS1015
PART NUMBER:		SPRK-TS1015-N352									
27.5	20	20	15.2	70lbs @36mm	187lbs @10mm	15.5	20.7	12.1	SPR-TS1015	RET-TS5.5/T8	SEAT-TS1015

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NVQ35	Valve Guides	10.07	42	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-6.5+	34	22.8	6.5mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-N35-955-N10													
95.5	STD	8.7:1	-10	57	29.6	81.4	R	144.2	22	4032	370	SWN 30131-0	T/N
PART NUMBER: P6-N35-95-N10													
96	0.5	8.8:1	-10	57	29.6	81.4	R	144.2	22	4032	370	SWN 30131-2	T/N

Nissan

VK56DE / 5.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1025	Intake Valve	STD	37.15	5.96	96.6	SS /Black Nitride	Single Groove
NIVN-1028	Intake Valve	OS	38.15	5.96	99.6	SS /Black Nitride	Single Groove
NIVN-1028L	Intake Valve	OS	38.15	5.96	99.1	SS /Black Nitride	Single Groove
NEVI-1023F	Exhaust Valve	US	30.5	5.97	95 (+1)	Inconel-Nimonic	Single Groove
NEVI-1025F	Exhaust Valve	STD	31.35	5.97	94	Inconel-Nimonic	Single Groove
NEVN-1028	Exhaust Valve	OS	32.35	5.97	94	SS /Black Nitride	Single Groove
NEVI-1028F	Exhaust Valve	OS	32.35	5.97	94	Inconel-Nimonic	Single Groove
NEVI-1029F-V2	Exhaust Valve	OS	33.5	5.97	94	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-TS2081-N35-32												
27.5	20	Single	Single	55lbs @35mm	150lbs @10mm	14.5	20.7	9.6	SPR-TS2081	RET-TS5.5/T6		
PART NUMBER: SPRK-TS1012-N35-32												
27.5	20	20	15.2	58lbs @36mm	153lbs @10mm	16	20.7	9.6	SPR-TS1012	RET-TS5.5/T8	SEAT-TS1015	
PART NUMBER: SPRK-TS1015-N35-32												
27.5	20	20	15.2	82lbs @35mm	202lbs @10mm	14.5	20.7	12.1	SPR-TS1015	RET-TS5.5/T8	SEAT-TS1015	
PART NUMBER: SPRK-TS1015-N352-32												
27.5	20	20	15.2	70lbs @36mm	187lbs @10mm	15.5	20.7	12.1	SPR-TS1015	RET-TS5.5/T8	SEAT-TS1015	



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NVQ35	Valve Guides	10.07	42	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-6.5+	34	22.8	6.5mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

Nissan

VQ37VHR / 3.7L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1038	Intake Valve	OS	37.7	5.97	100.2	SS /Black Nitride	Single Groove
NEVI-1038F	Exhaust Valve	OS	31.4	5.96	94.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-N370Z-1 (Intake)										
28	18.8	24.2	14.5	70lbs @39.4mm	197lbs @10mm	14	20.8	12.7	SPR-HM1007BE	RET-H55BE-T1		Use OEM Seat
PART NUMBER:		SPRK-N370Z-1 (Exhaust)										
27.7	19.7	23.2	15.2	60lbs @36.5mm	186lbs @10mm	13.5	21.8	12.7	SPR-T1015BE	RET-TS5.5/T8		Use OEM Seat

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NSR6-I	Valve Guides			
GDE-NSR6-E	Valve Guides			

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-6.5+	34	22.8	6.5mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.5-7A-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	



Nissan

CA18 DET

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1001	Intake Valve	STD	34.15	5.97	88.9	SS /Black Nitride	Single Groove
NIVN-1002	Intake Valve	OS	35.15	5.97	88.9	SS /Black Nitride	Single Groove
NEVI-1001	Exhaust Valve	STD	28.15	5.95	89.3	Inconel-Nimonic	Single Groove
NEVI-1002	Exhaust Valve	OS	29.15	5.95	89.3	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS2081-NCA										
27.5	20	Single	Single	55lbs @35mm	150lbs @10mm	13.5	20.7	9.6	SPR-TS2081	RET-NVG1015/T1	SS-3025	
PART NUMBER:		SPRK-TS1012-NCA										
27.5	20	20	15.2	73lbs @35mm	175lbs @10mm	15	20	10.2	SPR-TS1012	RET-NVG1015/T1	SEAT-1015/2	
PART NUMBER:		SPRK-TS1015-NCA										
27.5	20	20	15.2	82lbs @35mm	207lbs @10mm	14.3	20.7	12.5	SPR-TS1015	RET-NVG1015/T1	SEAT-1015/2	
PART NUMBER:		SPRK-TS1015/NCA										
27.5	20	20	15.2	73lbs @35mm	175lbs @10mm	15	20	10.2	SPR-TS1015-NCA	RET-NVG1015/T1	SEAT-1015/2	
PART NUMBER:		SPRK-TS1012-BE-NCA										
27.5	19.7	23.20	15.20	75lbs @34.25mm	187lbs @10mm	12.75	21.50	10	SPR-TS1012-BE-NCA	RET-NVG15-75BE		OEM Shim
PART NUMBER:		SPRK-TS1015-BE-NCA										
27.5	19.7	23.2	15.2	82lbs @34.25mm	212lbs @10mm	12.45	21.80	12.7	SPR-TS1015-BE-NCA	RET-NVG15-75BE		OEM Shim

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6N-6-ST	Valve Locks	
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-NCA18-85-1.3T	Head Gaskets	85	1.3	MLS	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-NCA18-835-CR8.5													
83.5	0.5	8.5:1	FT (-0.9)	53	30	83.6	R	133	20	4032	292	GNH8350	T/N
PART NUMBER: P4-NCA18-84-CR8.5													
84	1	8.5:1	FT (-0.9)	53	30	83.6	R	133	20	4032	296	GNH8400	T/N



Nissan

TB48

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-4070D	Intake Valve	OS	40	6.97	100.1	SS /Black Nitride	Single Groove
NIVT-4070F	Intake Valve	OS	40	6.97	100.1	Titanium	Single Groove
NEVN-3470D	Exhaust Valve	OS	34.8	6.95	98.3	SS /Black Nitride	Single Groove
NEVT-3470F	Exhaust Valve	OS	34.8	6.95	98.3	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1022S-TB48										
30	21.8	Single	Single	55lbs @39mm	121lbs @10mm	17	22	6.6	SPR-H1022S	RET-H60/T1	SEAT-TB1020D	
PART NUMBER:		SPRK-M1005S-TB48										
28	20	Single	Single	78lbs @38.5mm	180lbs @10mm	15	23.5	10.2	SPR-M1005S		SS-3025	
PART NUMBER:		SPRK-H1021S-TB48										
30	21.8	Single	Single	77lbs @39mm	167lbs @10mm	17	22	9	SPR-H1021S	RET-H60/T1	SEAT-TB1020D	
PART NUMBER:		SPRK-M1007S-TB48										
28.1	20	Single	Single	88lbs @38.5mm	192lbs @10mm	14.5	24	10.5	SPR-M1007S		SS-3025	
PART NUMBER:		SPRK-H1020+2024										
30	20	20.2	15.5	102lbs @39mm	221lbs @10mm	16	22.7	11.9	SPR-H1020	RET-H60/T1	SEAT-TB1020D	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF 34-3.5+	34	26	3.5mm + Shim 1.45- 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N7I	Valve Seals	
VS-N7E	Valve Seals	

Nissan

HR15DE / 1.5L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1003L	Intake Valve	STD	31.15	4.95	103.5 (+1mm)	SS /Black Nitride	Single Groove
NEVI-1003L	Exhaust Valve	STD	25.4	4.96	102.8 (+1mm)	Inconel-Nimonic	Single Groove

Nissan

VR30DETT / 3L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1070	Intake Valve	STD	33.5	5.47	101	SS /Black Nitride	Single Groove
NEVI-1070	Exhaust Valve	STD	28.5	5.46	97.5	Sodium Filled	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-FM46-BE-2										
27.3	19.1	24.5	16.3	80lbs @37mm	217lbs @10mm	12.7	20.8	13.7	SPR-FM46-BE-2	RET-NVR55-T1 + SS-3025		Use Factory Locks

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N5.5-E	Valve Seals	Intake and Exhaust



Nissan

VR38DETT / 3.8L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
NIVN-1060	Intake Valve	STD	37.15	5.96	95	SS /Black Nitride	Single Groove
NIVN-1062	Intake Valve	OS	38.15	5.96	95	SS /Black Nitride	Single Groove
NIVN-1062-S	Intake Valve	OS	38.15	5.96	94.65	SS /Black Nitride	Single Groove
NEVI-1060	Exhaust Valve	STD	32.15	5.95	92	Inconel-Nimonic	Single Groove
NEVI-1062	Exhaust Valve	OS	33.15	5.95	92	Inconel-Nimonic	Single Groove
NEVI-1062-S	Exhaust Valve	OS	33.15	5.95	91.7	Inconel-Nimonic	Single Groove
NEVI-1062-HS	Exhaust Valve	OS	33.15	5.95	92	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1012-GTR									
27.5	20	20	15.2	62lbs @35.65mm	162lbs @10mm	15.65	20	10.5	SPR-TS1012	RET-TS5.5/T9F	SEAT-TS/GTR-2 ; SEAT-TS/GTR
PART NUMBER:		SPRK-TS1015-GTR									
27.5	20	20	15.2	66lbs @35.65mm	187lbs @10mm	14.95	20.7	12.1	SPR-TS1015	RET-TS5.5/T9F	SEAT-TS/GTR-2 ; SEAT-TS/GTR
PART NUMBER:		SPRK-TS1012-GTR-BE									
27.7	19.7	23.2	15.2	78lbs @34.6mm	178lbs @10mm	11.5	21.5	10	SPR-TS1012-BE	RET-TS5.5/T9F-BE	SEAT-TS/GTR-3 ; SEAT-TS/GTR4

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-NVR38-I-OS1	Valve Guides	10.065	39.25	
GDE-NVR38-E-OS1	Valve Guides	10.065	36.2	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-6.5+	34	22.8	6.5mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-N6I	Valve Seals	
VS-N6E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-NVR38-100.5-0.95T-L	Head Gaskets	100.5	0.95	MLS	Left Side
HG-NVR38-100.5-0.95T-R	Head Gaskets	100.5	0.95	MLS	Right Side
HG-NVR38-100.5-1TC-L	Head Gaskets	100.5	1	Copper	Left Side
HG-NVR38-100.5-1TC-R	Head Gaskets	100.5	1	Copper	Right Side

Opel ; Vauxhall

C20XE / C20LET

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-3303F	Intake Valve	OS	34	6.96	105	SS /Black Nitride	Triple Groove
GEVI-3303F	Exhaust Valve	OS	30	6.95	105	Inconel-Nimonic	Triple Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1012-C20									
27.5	20	20	15.2	80lbs @33.5mm	188lbs @10mm	13.9	19.6	11.8	SPR-TS1012		SEAT-TS15-LS-IN
PART NUMBER:		SPRK-H1002-C20									
29.05	21.85	20.5	15.5	70lbs @34mm	177lbs @10mm	14.5	19.5	10	SPR-H1002	RET-H70/T1	SEAT-H1020DS
PART NUMBER:		SPRK-H1001D-C20									
29.35	21.85	20.5	15.5	80lbs @34mm	200lbs @10mm	14	20	11	SPR-H1001D	RET-H70/T1	SEAT-H1020DS

CAM FOLLOWERS

PART NUMBER	DDIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-15-LC6	32	26	15	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-T	Valve Locks	
VS-N7E	Valve Seals	

Opel ; Vauxhall ; GM

ECOTEC ; Z20LET

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-3311S	Intake Valve	STD	32	5.96	102.15	SS / Black Nitride	Single Groove
GIVN-3312S	Intake Valve	OS	32.5	5.96	102.15	SS / Black Nitride	Single Groove
GIVN-3313S	Intake Valve	OS	33	5.96	102.15	SS / Black Nitride	Single Groove
GEVI-3311S	Exhaust Valve	STD	29	5.95	92.3	Inconel-Nimonic	Single Groove
GEVI-3312S	Exhaust Valve	OS	29.5	5.95	92.3	Inconel-Nimonic	Single Groove
GEVI-3313S	Exhaust Valve	OS	30	5.95	92.3	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-Z20									
27.5	20	20	15.2	75lbs @35.10mm	195lbs @10mm	14.4	20.70	12.1	SPR-TS1015	RET-TS55/T5 + SEAT-TS-Z20	SEAT-TS15-LS-IN
PART NUMBER:		SPRK-TS1012-Z20									
27.5	20	20	15.20	64lbs @35.10mm	180lbs @10mm	15.1	20	9.6	SPR-TS1012	RET-TS55/T5 + SEAT-TS-Z20	SEAT-H1020DS

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-15-LC6	32	26	15	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Valve Locks	
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	

Opel ; Vauxhall ; GM

ECOTEC Z20LET / LEH-X20XE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-3311S	Intake Valve	STD	32	5.96	102.15	SS / Black Nitride	Single Groove
GIVN-3312S	Intake Valve	OS	32.5	5.96	102.15	SS / Black Nitride	Single Groove
GIVN-3313S	Intake Valve	OS	33	5.96	102.15	SS / Black Nitride	Single Groove
GEVI-3311S	Exhaust Valve	STD	29	5.95	92.3	Inconel-Nimonic	Single Groove
GEVI-3312S	Exhaust Valve	OS	29.5	5.95	92.3	Inconel-Nimonic	Single Groove
GEVI-3313S	Exhaust Valve	OS	30	5.95	92.3	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-Z20									
27.5	20	20	15.2	75lbs @35.10mm	195lbs @10mm	14.4	20.70	12.1	SPR-TS1015	RET-TS55/T5 + SEAT-TS-Z20	SEAT-TS15-LS-IN
PART NUMBER:		SPRK-TS1012-Z20									
27.5	20	20	15.20	64lbs @35.10mm	180lbs @10mm	15.1	20	9.6	SPR-TS1012	RET-TS55/T5 + SEAT-TS-Z20	SEAT-H1020DS

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-15-LC6	32	26	15	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Valve Locks	
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	

Opel

Z16 ; Z18LER ; A18XER

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
GIVN-3320S	Intake Valve	STD	31.3	4.96	118.38	SS / Black Nitride	Single Groove
GEVI-3320S	Exhaust Valve	STD	27.5	4.95	113.15	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MC56BE										
23.3	16.8	18.8	12.3	62lbs @34.6mm	150lbs @10mm	11.4	20.70	9.7	SPR-MC56BE	RET-MC50/T1		
PART NUMBER:		SPRK-TS1012-Z18										
27.5	20	20	15.20	63lbs @34.3mm	167lbs @10mm	14	20	10.4	SPR-TS1012	RET-TS50/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-OP50	Valve Guides	12.03	45	Intake and exhaust guide

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-32-3.10	32	24.5	3.1	
CF-32-3.25	32	24.5	3.25	
CF-32-3.35	32	24.5	3.35	
CF-32-3.55	32	24.5	3.55	
CF-32-3.70	32	24.5	3.7	

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-GM50-E	Valve Seals	
VSI-GM50-E-16	Valve Seals	

Peugeot

PRINCE EP6 / 1.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
MCIVN-1200S	Intake Valve	STD	28.8	4.96	105.8	SS / Black Nitride	Single Groove
MCIVN-1201S	Intake Valve	OS	29.8	4.96	105.8	SS / Black Nitride	Single Groove
MCEVI-1200-HS	Exhaust Valve	STD	26.2	4.95	110.15	Sodium filled Inconel	Single Groove
MCEVI-1202-HS	Exhaust Valve	STD	27	4.95	110.15	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-MC56BE										
23.5	16.5	19.3	12.3	70lbs @33.6mm	163lbs @10mm	11.4	22.2	9.7	SPR-MC56BE	RET-MC56/T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-MIN-R56-STD	Valve Guides	9.022	44.9	
GDE-MIN-R56-0S	Valve Guides	9.06	44.9	Oversized

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-5.0-7S	Valve Locks	
KPR-5.0-7S-32	Valve Locks	
VSI-MIN-R56	Valve Seals	
VSI-MIN-R56-16	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-MCR56-78-0.9T	Head Gaskets	78.5	0.9	MLS

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MIN56-H138.54	138.54	20	20	48	20.88	472

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-MIN56-N14-77-CR10.5													
77	STD	10.5	STD	37.6	28.7	85.8	X	138.5	20	4032	262	GBH7700	T/N
PART NUMBER: P4-MIN56-N14-77.5-CR10.5													
77.5	0.5	10.5	STD	37.6	28.7	85.8	X	138.5	20	4032	267	GNH7750	T/N

Peugeot

TU5J4

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-28603	Intake Valve	STD	31.3	5.96	103.8	SS / Black Nitride	Single Groove
PEEVN-28604	Exhaust Valve	STD	24.5	5.96	104.4	SS / Black Nitride	Single Groove
PEEVN-28606	Exhaust Valve	OS	25.5	5.96	104.4	SS / Black Nitride	Single Groove



PEUGEOT

Peugeot

TU5JP4

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-28603	Intake Valve	STD	31.3	5.96	103.8	SS / Black Nitride	Single Groove
PEEVN-28604	Exhaust Valve	STD	24.5	5.96	104.4	SS / Black Nitride	Single Groove
PEEVN-28606	Exhaust Valve	OS	25.5	5.96	104.4	SS / Black Nitride	Single Groove

Peugeot

GROUP A

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-70032	Intake Valve	STD	41.5	7.97	108	SS / Black Nitride	Single Groove
PEEVN-70033	Exhaust Valve	STD	34.5	7.97	104.4	SS / Black Nitride	Single Groove

Peugeot

EW10J4

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVC-28594	Intake Valve	STD	33.3	5.98	106.2	Chrome	Single Groove
PEEVI-28595	Exhaust Valve	STD	29	5.97	103.35	Inconel-Nimonic	Single Groove

Peugeot

EW10J4S

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-28704	Intake Valve	STD	35	5.97	106.1	SS / Black Nitride	Single Groove
PEEVN-28705	Exhaust Valve	STD	31	5.95	102.85	Inconel-Nimonic	Single Groove

Peugeot

XU10J4

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-28055F	Intake Valve	STD	34.6	6.98	106.4	SS / Black Nitride	Triple Groove
PEEVN-28056F	Exhaust Valve	STD	29.6	6.96	104.9	Inconel-Nimonic	Triple Groove
PEEVI-28056F	Exhaust Valve	STD	29.6	6.96	104.9	Inconel-Nimonic	Triple Groove

Peugeot

XU10J4RS

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
PEIVN-28692	Intake Valve	STD	34.1	5.97	106.5	SS / Black Nitride	Single Groove
PEEVN-28693	Exhaust Valve	STD	30.8	5.96	105.3	SS / Black Nitride	Single Groove



Renault

F4R RS / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
RIVN-28337-2	Intake Valve	STD	33.5	5.47	110.05	SS / Black Nitride	Single Groove
RIVN-28337-4	Intake Valve	OS	35	5.47	110.05	SS / Black Nitride	Single Groove
REVI-28338F-2	Exhaust Valve	STD	29	5.44	108.9	Inconel-Nimonic	Single Groove
REVN-28338F-3	Exhaust Valve	OS	30	5.44	108.9	SS / Black Nitride	Single Groove
REVI-28338F-3	Exhaust Valve	OS	30	5.44	108.9	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1012-FR4									
27.5	20	20	15.2	72lbs @34mm	168lbs @10mm	13.3	20.7	9.6	SPR-TS1012	RET-TS55/T5R	SEAT-F4R-IN, SEAT-F4R-EX
PART NUMBER:		SPRK-TS1015-FR4									
27.5	20	20	15.2	83lbs @34mm	204lbs @10mm	13.3	20.7	12.1	SPR-TS1015	RET-TS55/T5R	SEAT-F4R-IN, SEAT-F4R-EX

Renault

F4RT 2.0LTS / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
RIVN-28337-1	Intake Valve	STD	32.3	5.47	110	SS / Black Nitride	Single Groove	
RIVN-28337-2	Intake Valve	OS	33.5	5.47	110	SS / Black Nitride	Single Groove	
REVI-28338F-2-6	Exhaust Valve	STD	29	5.97 (tip 5.5)	108.9	Inconel-Nimonic	Single Groove	Must use KPR-6S/7
REVI-28338F-3-6	Exhaust Valve	OS	30	5.97 (tip 5.5)	108.9	Inconel-Nimonic	Single Groove	Must use KPR-6S/7

Renault

F7R CLIO WILLIAMS / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
RIVN-28069	Intake Valve	STD	32.2	6.97	108.9	SS / Black Nitride	Single Groove
REVN-28070	Exhaust Valve	STD	28.45	6.97	110.1	SS / Black Nitride	Single Groove



Subaru

EJ20 / EJ25 TURBO DOHC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1010	Intake Valve	STD	36	5.96	104.35	SS / Black Nitride	Single Groove
SIVN-1012	Intake Valve	OS	36.5	5.96	104.35	SS / Black Nitride	Single Groove
SIVN-1012-2	Intake Valve	OS	36.5	5.96	103.85	SS / Black Nitride	Single Groove
SIVN-1014	Intake Valve	OS	37	5.96	104.35	SS / Black Nitride	Single Groove
SIVN-1014-2	Intake Valve	OS	37	5.96	103.85	SS / Black Nitride	Single Groove
SEVN-1010	Exhaust Valve	STD	32	5.96	104.7	SS / Black Nitride	Single Groove
SEVI-1010	Exhaust Valve	STD	32	5.96	104.7	Inconel-Nimonic	Single Groove
SEVN-1012-2	Exhaust Valve	OS	32.5	5.96	104.2	SS / Black Nitride	Single Groove
SEVI-1012	Exhaust Valve	OS	32.5	5.96	104.7	Inconel-Nimonic	Single Groove
SEVI-1012-2	Exhaust Valve	OS	32.5	5.96	104.20	Inconel-Nimonic	Single Groove
SEVN-1014-2	Exhaust Valve	OS	33	5.96	104.2	SS / Black Nitride	Single Groove
SEVI-1014	Exhaust Valve	OS	33	5.96	104.7	Inconel-Nimonic	Single Groove
SEVI-1014-2	Exhaust Valve	OS	33	5.96	104.2	Inconel-Nimonic	Single Groove
SEVI-1010-HS	Exhaust Valve	STD	32	5.96	104.7	Sodium filled Inconel	Single Groove
SEVI-1014-HS	Exhaust Valve	OS	33	5.96	104.7	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-TS1015-SU3									
27.5	20	20	15.2	64lbs @35.6mm	199lbs @11.5mm	15.3	20.7	12.1	SPR-TS1015	RET-TS60/WRX1	SEAT-TS-SUB3
PART NUMBER:		SPRK-TS1015-SU1									
27.5	20	20	15.2	70lbs @35mm	209lbs @11.5mm	14.8	20.7	12.1	SPR-TS1015	RET-TS60/WRX1	SEAT-TS/SUB
PART NUMBER:		SPRK-TS1015-SU4									
27.5	20	20	15.2	82lbs @33.8mm	220lbs @11.5mm	13.5	20.7	12.1	SPR-TS1015	RET-TS60/WRX1	SEAT-TS/SUB4
PART NUMBER:		SPRK-TS1015-IN-SU4									
27.5	20	20	14.2	100lbs @33.8mm	273lbs @11.5mm	13.5	20.7	14.9	SPR-TS1015	RET-TS60IN2/WRX1	SEAT-TS/SUB4
PART NUMBER:		SPRK-TS1015-BE-SU3									
27.7	19.7	23.2	15.2	65lbs @35.6mm	211lbs @11.5mm	14.2	21.8	12.7	SPR-TS1015-BE	RET-TS60/WRX-BE	SEAT-TS/SUB3
PART NUMBER:		SPRK-TS1015-BE-SU1									
27.7	19.7	23.2	15.2	70lbs @35mm	217lbs @11.5mm	12.5	21.8	12.7	SPR-TS1015-BE	RET-TS60/WRX-BE	SEAT-TS/SUB
PART NUMBER:		SPRK-TS1015-BE-SU4									
27.7	19.7	23.2	15.2	85lbs @33.4mm	234lbs @11.5mm	11.5	21.8	12.7	SPR-TS1015-BE	RET-TS60/WRX-BE	SEAT-TS/SUB4

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-SUEJ6-I	Valve Guides	11.08	39.5	
GDE-SUEJ6-E	Valve Guides	11.08	47.5	



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-2.7+	35	25	2.7mm + Shim 1.45- 3.50	
CF-35-3.7+	35	25	3.7mm + Shim 1.45- 3.50	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
KPR-6T-ST-32	Valve Locks	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-SUEJ20-93.5-1.2T	Head Gaskets	93.5	1.2	Copper Ring	
HG-SUEJ20-94-1T	Head Gaskets	94	1	MLS	
HG-SUEJ20-94-1.3T	Head Gaskets	94	1.3	MLS	
HG-SUEJ20-95-1.2TBB	Head Gaskets	95	1.2	Copper Ring	Big Center Bolts
HG-SUEJ235-99-1.2TBB	Head Gaskets	99	1.2	Copper Ring	EJ235 Big Center bolts
HG-SUEJ25-100-1.3T	Head Gaskets	100	1.3	MLS	
HG-SUEJ25-101-0.95T	Head Gaskets	101	0.95	MLS	
HG-SUEJ25-101.3-1T	Head Gaskets	101.3	1	MLS	Big Center Bolts
HG-SUEJ25-101.3-1T	Head Gaskets	101.3	1.2	Copper Ring	
HG-SUEJ25-101.3-1.2TBB	Head Gaskets	101.3	1.2	Copper Ring	Big Center bolts
HG-SUEJ25-101.3-1.2TC	Head Gaskets	101.3	1.2	Copper Ring	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-SU9200-N5-H13					NOTES: Spec C Crown Style								
92	STD	8.3:1	-5	49	31.5	75	R	130.5	23	4032	380	SWF-20060-0	T/N
PART NUMBER: P4-SU9250-N5-H13					NOTES: Spec C Crown Style								
92.5	0.5	8.4:1	-5	49	31.5	75	R	130.5	23	4032	390	SWF-20060-2	T/N
PART NUMBER: P4-SU9300-N5-H13					NOTES: Spec C Crown Style								
93	1	8.5:1	-5	49	31.5	75	R	130.5	23	4032	400	SWF-20057-4	T/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-SU9950-N1													
99.5	STD	10.5:1	-1	56	30.7	79	R	130.5	23	4032	390	SWF-20068	T/N
PART NUMBER: P4-SU9950-N20-H13													
99.5	STD	8.2:1	-20.5	56	30.7	79	R	130.5	23	4032	390	SWF-20068	T/N
PART NUMBER: P4-SU100-N20B-H13													
100	0.5	8.2:1	-20.5	56	30.7	79	R	130.5	23	4032	400	SWF-20068-2	T/N

Subaru

EJ25 NON TURBO DOHC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1016	Intake Valve	STD	36	5.96	105.9	SS / Black Nitride	Single Groove
SIVN-1015	Intake Valve	OS	37	5.96	108.1	SS / Black Nitride	Single Groove
SEVN-1016	Exhaust Valve	STD	32	5.96	106.2	SS / Black Nitride	Single Groove
SEVI-1016	Exhaust Valve	STD	32	5.96	106.2	Inconel-Nimonic	Single Groove
SEVI-1015	Exhaust Valve	STD	33	5.96	108.35	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-TS1015-SU5												
27.5	20	20	15.2	70lbs @35.5mm	209lbs @11.5mm	13.8	20.7	12.1	SPRK-TS1015	RET-TS60/WRX1	SEAT-TS/SUB-5	



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-2.7+	35	25	2.7mm + Shim 1.45- 3.50	
CF-35-3.7+	35	25	3.7mm + Shim 1.45- 3.50	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	

Subaru

EJ25 NON TURBO SOHC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1025	Intake Valve	OS	37	5.96	120.6	SS / Black Nitride	Single Groove
SEVI-1026	Exhaust Valve	OS	33	5.96	121.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1015-SU5										
27.5	20	20	15.2	70lbs @35.5mm	209lbs @11.5mm	13.8	20.7	12.1	SPRK-TS1015	RET-TS60/WRX1	SEAT-TS/SUB-5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-2.7+	35	25	2.7mm + Shim 1.45- 3.50	
CF-35-3.7+	35	25	3.7mm + Shim 1.45- 3.50	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	

Subaru

EZ30 H6 (1ST GEN)

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-2301F	Intake Valve	STD	35	5.48	103.4	SS / Black Nitride	Single Groove
SIVN-2304D	Intake Valve	STD	36	5.48	103.4	SS / Black Nitride	Single Groove
SEVN-1021D	Exhaust Valve	STD	30.5	5.45	103.25	SS / Black Nitride	Single Groove
SEVN-1030D	Exhaust Valve	OS	31	5.45	103.25	SS / Black Nitride	Single Groove
SEVN-1033D	Exhaust Valve	OS	31.5	5.45	103.25	SS / Black Nitride	Single Groove
SEVI-1033D	Exhaust Valve	OS	31.5	5.45	103.25	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1015-SU6										
27.5	20	20	15.2	63lbs @36.1mm	184lbs @10mm	15.2	20.7	12.1	SPRK-TS1015	RET-TS5.5/T1	SEAT-TS/SUB	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-2.5+	34	26	3.5mm + Shim 1.45- 3.50mm	
CF-34-3.5+	34	26	3.5mm + Shim 1.45- 3.50mm	



COMPONENTS

PART NUMBER	NAME	NOTES
VS-SU5.5-EI	Valve Seals	

Subaru

EZ30 H6 (2ND GEN)

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1043	Intake Valve	STD	35	5.48	99.8	SS / Black Nitride	Single Groove
SEVI-1043D	Exhaust Valve	STD	30.5	5.45	105.25	Inconel-Nimonic	Single Groove
SEVI-1045D	Exhaust Valve	OS	31.5	5.45	105.25	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-SUEZ30-W									
29.1	21.9	20.5	15.5	85lbs @31.9mm	195lbs @11mm	12.4	19.5	10	SPR-H1002D ; SPR-TS1012	RET-H1000/T2 ; RET-TS5.5/T1F	SEAT-TS/SUH6E

COMPONENTS

PART NUMBER	NAME	NOTES
VS-SU5.5-EI	Valve Seals	
VS-SU5.5-EI-24	Valve Seals	

Subaru

EG33 H6 / 3.3L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1080	Intake Valve	STD	36	5.96	92.1	SS / Black Nitride	Single Groove
SEVI-1080	Exhaust Valve	STD	32	5.96	92.7	Inconel-Nimonic	Single Groove

Subaru

FA20

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1050	Intake Valve	STD	35	5.46	103.3	SS / Black Nitride	Single Groove
SIVN-1050-2	Intake Valve	STD	35	5.46	105	SS / Black Nitride	Single Groove
SIVN-1052-2	Intake Valve	OS	36	5.46	105	SS / Black Nitride	Single Groove
SEVI-1050	Exhaust Valve	STD	29	5.45	95.15	Inconel-Nimonic	Single Groove
SEVI-1050-2	Exhaust Valve	STD	29	5.45	97.7	Inconel-Nimonic	Single Groove
SEVI-1052-2	Exhaust Valve	OS	30	5.45	97.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-1002-BRZ									
29.05	21.85	20.5	15.5	74lbs @33.5mm	174lbs @10mm	14	19.5	10	SPR-H1002D	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-100-BRZ									
30.2	22.2	22.2	16.8	87lbs @33.5mm	212lbs @10mm	15	18.5	12.5	SPR-H100-DR	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-H1002BRZ-BE									
29.1	21.3	23	15.65	72lbs @33.5mm	170lbs @10mm	13	19	9.7	SPR-H1002BE	RET-H55BE-BRZ	SEAT-H1002D-BRZ-2



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TFRS55-I	Valve Guides	10.05	37	
GDE-TFRS55-E	Valve Guides	10.05	41.3	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-SU5.5-EI	Valve Seals	
VS-SU5.5-EI-16	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FA20-H129.30	129.3	22	21.4	53	21.4	533.9

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-TFRS-86-CR12.5													
86	STD	12.5:1	-0.2	39	32.5	85.85	X	129.4	22	4032	343	GNH8600	A/N
PART NUMBER: P4-TFRS-86-CR9.5													
86	STD	9.5:1	-15.5	39	32.5	85.85	X	129.4	22	4032	339	GNH8600	A/N

Subaru

FA20F (DIT)

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1049-2	Intake Valve	STD	34	5.46	105	SS / Black Nitride	Single Groove
SIVN-1050-2	Intake Valve	OS	35	5.46	105	SS / Black Nitride	Single Groove
SEVI-1050-2	Exhaust Valve	STD	29	5.45	97.7	Inconel-Nimonic	Single Groove
SEVI-1052-2	Exhaust Valve	OS	30	5.45	97.7	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-1002-BRZ									
29.05	21.85	20.5	15.5	74lbs @33.5mm	174lbs @10mm	14	19.5	10	SPR-H1002D	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-100-BRZ									
30.2	22.2	22.2	16.8	87lbs @33.5mm	212lbs @10mm	15	18.5	12.5	SPR-H100-DR	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-H1002BRZ-BE									
29.1	21.3	23	15.65	72lbs @33.5mm	170lbs @10mm	13	19	9.7	SPR-H1002BE	RET-H55BE-BRZ	SEAT-H1002D-BRZ-2

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TFRS55-I	Valve Guides	10.05	37	
GDE-TFRS55-E	Valve Guides	10.05	41.3	
VS-SU5.5-EI	Valve Seal	12.2		



Toyota

4AGE 16V

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1019	Intake Valve	STD	30.5	5.98	99.6	SS / Black Nitride	Single Groove
TIVN-1020	Intake Valve	OS	32	5.98	99.6	SS / Black Nitride	Single Groove
TEVN-1019	Exhaust Valve	STD	25.5	5.97	99.75	SS / Black Nitride	Single Groove
TEVN-1020	Exhaust Valve	STD	27.5	5.97	99.75	SS / Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE	
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN								
PART NUMBER:		SPRK-TC25D						Oil Seal VS-T6SM / To be used with guide GDE-T4AGE-SM					
25	18	18	13	73lbs @35.4mm	202lbs @10.5mm	14.4	21/17	12.6	SPRK-TC25D	RET-2500/T1	SS-3012		
PART NUMBER:		SPRK-TC25S											
25	18	Single	Single	55lbs @35.4mm	130lbs @10.5mm	14.4	21	7.6	SPRK-TC25S	RET-2500/T1	SS-3012		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-T4AG-SM	Valve Guides	11.04	40.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-28-3.65+	28	23	3.65mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	
VS-T6SM	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-T4GE-83-1T	Head Gaskets	83	1	MLS	
HG-T4GE-83-1.3T	Head Gaskets	83	1.3	MLS	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-T4AG-81.5-CR11.5													
81.5	0.5	11:1	3.1	35	30.7	77	X	122	18	4032	260	GNH8150	A/N
PART NUMBER: P4-T4AG-82-CR11.5													
82	1	11:1	3.1	35	30.7	77	X	122	18	4032	265	GNH8200	A/N
PART NUMBER: P4-T4AG16-20-81-CR11													
81	STD	11:1	3.1	35	30.7	77	X	122	20	4032	260	GNH8100	A/N
PART NUMBER: P4-T4AG16-20-81.5-CR11													
81.5	0.5	11:1	3.1	35	30.7	77	X	122	20	4032	265	GNH8150	A/N
PART NUMBER: P4-T4AG16-20-82-CR11													
82	1	11:1	3.1	35	30.7	77	X	122	20	4032	265	GNH8200	A/N

Toyota

4AGE 20V

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1017 (12)	Intake Valve	STD	26.5	4.98	98.6	SS / Black Nitride	Single Groove
TIVN-1018 (12)	Intake Valve	OS	27.5	4.98	98.6	SS / Black Nitride	Single Groove
TEVN-1018 (8)	Exhaust Valve	OS	27	4.97	108.40	SS / Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-A2095-ST (silver top)												
20.6	14.4	Single		54lbs @36.6mm	123lbs @10.5mm	13.6	23	6.7	SPR-A2095-ST	RET-TC50/T1	Factory Seat	
PART NUMBER: SPRK-A2095-BT (Black Top)												
20.6	14.4	Single		54lbs @36.6mm	123lbs @10.5mm	13.6	23	6.7	SPR-A2095-BT	RET-TC50/T1	SS-3021	



COMPONENTS

PART NUMBER	NAME	NOTES
GDE-T20V-I (12)	Valve Guides	
GDE-T20V-E (8)	Valve Guides	
VS-TY5E	Valve Seals	

Toyota

7MCTE / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE	NOTE
TIVC-1006	Intake Valve	STD	32	5.98	98.1	Chrome	Single Groove	Chrome coated
TIVN-1007	Intake Valve	OS	32.5	5.98	98.1	SS /Black Nitride	Single Groove	Black Nitride
TEVC-1006	Exhaust Valve	STD	27.5	5.97	98.2	Chrome	Single Groove	Chrome Coated
TEVI-1007	Exhaust Valve	OS	28	5.97	98.2	Inconel-Nimonic	Single Groove	Inconel

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TC25D-24										
25	18	18	13	67lbs @36mm	200lbs @10.5mm	14.4	21/17	12.6	SPR-TC25D	RET-2500/T1	SS-3012	
PART NUMBER:		SPRK-TC25S-24										
25	18	Single	Single	51lbs @36mm	131lbs @10.5mm	14.4	21	7.6	SPR-TC25S	RET-2500/T1	SS-3012	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-T4AGE-SM	Valve Guides	11.04	40.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-28-3.65+	28	23	3.65mm + shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
VS-TS6-I	Valve Seals	
VS-TS6-E	Valve Seals	
VS-T6SM	Valve Seals	

Toyota

2JZ-GE ; 2JZ-GTE DOHC / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1014	Intake Valve	STD	33.5	5.98	98.55	SS / Black Nitride	Single Groove
TIVN-1016	Intake Valve	OS	34.5	5.98	98.55	SS / Black Nitride	Single Groove
TEVI-1014	Exhaust Valve	STD	29	5.97	99.1	Inconel-Nimonic	Single Groove
TEVN-1016	Exhaust Valve	OS	30	5.97	99.1	SS / Black Nitride	Single Groove
TEVI-1016	Exhaust Valve	OS	30	5.97	99.1	Inconel-Nimonic	Single Groove
TEVI-1016-HS	Exhaust Valve	OS	30	5.97	99.1	Sodium filled Inconel	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-2081-SP										
27.5	20	Single	Single	60lbs @33.6mm	165lbs @11mm	12.9	20.7	9.6	SPR-2081	RET-NVG1015/T1		
PART NUMBER:		SPRK-TS1012										
27.5	20	20	15.2	80lbs @33.6mm	185lbs @11mm	13.6	20	9.6	SPR-TS1012	RET-TS60/T1B	SEAT-TS1015-1	
PART NUMBER:		SPRK-TS1012-BE										
27.7	19.7	23.2	15.2	82lbs @33.6mm	196lbs @11mm	11.7	21.8	10.4	SPR-TS1012-BE	RET-TS60/T1-BE		
PART NUMBER:		SPRK-TS1015										
27.5	20	20	15.2	91lbs @33.6mm	224lbs @11mm	12.9	20.7	12.1	SPR-TS1015	RET-TS60/T1B	SEAT-TS1015-1	
PART NUMBER:		SPRK-TS1015-BE										
27.7	19.7	23.2	15.2	91lbs @33.6mm	230lbs @11mm	11.1	21.8	12.7	SPR-TS1015-BE	RET-TS60/T1-BE		
PART NUMBER:		SPR-TS1009 (Drag Only)										
27.5	20	20	14.2	118lbs @33.6mm	277lbs @11mm	12.1	20.7 /19.5	14.5	SPR-TS1009	RET-TS60/T1-2		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-T2JZ-I	Valve Guides	11.03	38.5	
GDE-T2JZ-E	Valve Guides	11.03	40.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
GDE-T2JZ-I	Valve Seals	
GDE-T2JZ-E	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-T2JZ-87-1.5T	Head Gaskets	87	1.3	MLS	
HG-T2JZ-87-1.6TC	Head Gaskets	87	1.6	Copper Ring	
HG-T2JZ-87.7-1.5T	Head Gaskets	87.7	1.5	MLS	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-T2JZ-86-CR9.5													
86	STD	9.5:1	-7.2		34	86	R		22	2618		GNH8600	T/N
PART NUMBER: P6-T2JZ-8650-CR9.5													
86.5	0.5	9.5:1	-7.2		34	86	R		22	2618		GNH8600	T/N
PART NUMBER: P6-T2Z-87-CR9.5													
87	1	9.5:1	-7.2		34	86	R		22	2618		GNH8600	T/N

Toyota

1JZ-GE ; 1JZ GTE 3.0LTS / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1008	Intake Valve	STD	32	5.94	97.5	SS / Black Nitride	Single Groove
TIVN-1009	Intake Valve	OS	33	5.94	97.5	SS / Black Nitride	Single Groove
TEVI-1008	Exhaust Valve	STD	30	5.97	98.1	Inconel-Nimonic	Single Groove
TEVI-1009	Exhaust Valve	OS	31	5.97	98.1	Inconel-Nimonic	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-2081-SP										
27.5	20	Single	Single	60lbs @33.6mm	165lbs @11mm	12.9	20.7	9.6	SPR-2081-SP	RET-NVG1015/T1		
PART NUMBER:		SPRK-TS1012-BE										
27.7	19.7	23.2	15.2	82lbs @33.6mm	196lbs @11mm	11.7	21.8	10.4	SPR-TS1012-BE	RET-TS60/T1-BE	SEAT-TS1015-1	
PART NUMBER:		SPRK-TS1015-BE										
27.7	19.7	23.2	15.2	91lbs @33.6mm	230lbs @11mm	11.1	21.8	12.7	SPR-TS1015-BE	RET-TS60/T1-BE		

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45mm-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
KPR-6T-ST-48	Valve Locks	

Toyota

B58B30 / 3.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1058	Intake Valve	STD	30.1	4.96	99.5	SS /Black Nitride	Single Groove
TEVI-1058-HS	Exhaust Valve	STD	28.5	5.95	100.1	Sodium Filled Inconel	Single Groove
TEVI-1058	Exhaust Valve	STD	28.5	5.95	100.1	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-B58B								
24.4	17.6	21	14.2	75lbs @37mm	155lbs @10mm	12.2	23.2	8	SPR-FE20BE	RET-BMB48/TE(12)
PART NUMBER:		SPRK-B58B-2								
24.4	17.6	21	14.2	84lbs @37mm	157lbs @10mm	12.2	23.2	7.25	SPR-FE20BE	RET-BMB48/TE(12)

COMPONENTS

PART NUMBER	NAME	NOTES
VSI-BM50-I	Valve Seals	
VSI-BM60-E	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-MINB48-H148.30	148	22	21	53.66	23.9	
CR-BMB58-I-148.30	148.3	22	21	53.6	23.9	

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOME DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P6-MINB48-82-CR10.2													
82	STD	10.2:1	STD	36	33.2	94.6	X	148.3	22	2618	298	GNH-8200	T/N
PART NUMBER: P6-MINB48-82-CR10.2-B													
82	STD	10.2:1	STD	36	33.2	94.6	X	148.3	22	2618	298	GNH-8200	T/N
PART NUMBER: P6-MINB48-82-CR11													
82	STD	11:1	STD	36	33.2	94.6	X	148.3	22	2618	298	GNH-8200	T/N
PART NUMBER: P6-MINB48-82.5-CR11													
82.5	0.5	11:1	STD	36	33.2	94.6	X	148.3	22	2618	308	GNH-8200	T/N



Toyota

2TC / 3TC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1063	Intake Valve	OS	44	8	110	SS /Black Nitride	Single Groove
TEVN-1063	Exhaust Valve	OS	39	8	11	SS /Black Nitride	Single Groove

Toyota

STARLET GT / 4E-FTE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-0174	Intake Valve	STD	29.5	5.97	93.3	SS /Black Nitride	Single Groove
TEVI-0175	Exhaust Valve	STD	25.5	5.97	93.3	Inconel-Nimonic	Single Groove

Toyota

3SGTE / 2.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1011	Intake Valve	OS	34	5.98	100.5	SS /Black Nitride	Single Groove
TIVN-1012	Intake Valve	OS	34.5	5.98	100.5	SS /Black Nitride	Single Groove
TEVN-1011	Exhaust Valve	OS	29.5	5.97	99.5	SS /Black Nitride	Single Groove
TEVN-1016	Exhaust Valve	OS	30	5.97	99.1	SS /Black Nitride	Single Groove
TEVI-1016	Exhaust Valve	OS	30	5.97	99.1	Inconel-Nimonic	Single Groove
TEVI-1016-HS	Exhaust Valve	OS	30	5.97	99.1	Sodium Filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-2081-MR										
27.5	20	Single	Single	59lbs @34.75mm	175lbs @12mm	13.25	20.7	9.6	SPR-2081	RET-TS60/MA2	SS-3025	
PART NUMBER:		SPRK-TS1015-MR										
27.5	20	20	15.2	77lbs @35.5mm	222lbs @12mm	14	20.7	12.1	SPR-TS1015	RET-TS60/T1B	SEAT-TS1015-1	
PART NUMBER:		SPRK-2081-MR2R										
27.5	20	Single	Single	59lbs @34.75mm	175lbs @12mm	13.25	20.7	9.6	SPR-2081	RET-TS60/MA2R	SS-3025	Shim under bucket
PART NUMBER:		SPRK-TS1015-MR2R										
27.5	20	20	15.2	77lbs @35.5mm	222lbs @12mm	14	20.7	12.1	SPR-TS1015	RET-TS60/MA2R	SEAT-TS1015-1	Shim under bucket

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-T3SGTE-EI	Valve Guides	11.066	44.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	
VS-TS6-I	Valve Seals	
VS-TS6-E	Valve Seals	



HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-T3SG-87-1.2T	Head Gaskets	87	1.2	MLS	
HG-T3SG-87-1.4T	Head Gaskets	87	1.4	MLS	

Toyota

1ZZ-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1021	Intake Valve	STD	32	5.48	88.67	SS /Black Nitride	Single Groove
TEVN-1021	Exhaust Valve	STD	27.5	5.46	88.74	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS2081-TC										
27.5	20	Single	Single	60lbs @33.6mm	165lbs @11mm	12.9	20.7	9.6	SPR-TS2081	RET-TS5.5/TC-S	SEAT-TS/TC	
PART NUMBER:		SPRK-TS1015-TC										
27.5	20	20	15.2	81lbs @34mm	214lbs @11mm	13.3	20.7	12.1	SPR-TS1015	RET-TS5.5/TC	SEAT-TS/TC	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	
VS-T5.5-E	Valve Seals	

Toyota

2ZZ-GE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1031	Intake Valve	STD	34	5.48	111.45	SS /Black Nitride	Single Groove
TIVN-1031F	Intake Valve	STD	34	5.48	111.45	SS /Black Nitride	Single Groove
TEVN-1031	Exhaust Valve	STD	29	5.46	111.65	SS /Black Nitride	Single Groove
TEVN-1031F	Exhaust Valve	STD	29	5.46	111.65	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-A2416-T2Z										
24	16.5	Single	Single	73lbs @38.5mm	178lbs @10mm	12.5	24.9	10.5	SPR-A2416	RET-T2Z/T2	SEAT-TS/TC	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	
VS-T5.5-E	Valve Seals	



Toyota

2AZ-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1035	Intake Valve	STD	34	5.48	101.85	SS /Black Nitride	Single Groove
TIVN-1037	Intake Valve	OS	35	5.48	101.85	SS /Black Nitride	Single Groove
TEVI-1035	Exhaust Valve	STD	29.5	5.46	101.2	Inconel-Nimonic	Single Groove
TEVI-1037	Exhaust Valve	OS	30.5	5.46	101.2	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS2081-TC										
27.5	20	Single	Single	58lbs @34mm	157lbs @11mm	12.5	20.7	9	SPR-TS2081	RET-TS5.5/TC-S	SEAT-TS/TC	
PART NUMBER:		SPRK-TS1015-TC										
27.5	20	20	15.2	81lbs @34mm	226lbs @12mm	12.5	20.7	12.1	SPR-TS1015	RET-TS5.5/TC	SEAT-TS/TC	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TS55-I	Valve Guides	10.3	38.5	
GDE-TS55-E	Valve Guides	10.3	40.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-2.5+	31	25.5	2.50mm + Shim 1.45- 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	
VS-T5.5-E	Valve Seals	

Toyota

2RZ-FE / 3RZ-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1045	Intake Valve	STD	37.5	5.97	103.6	SS /Black Nitride	Single Groove
TIVN-1047	Intake Valve	OS	38.5	5.97	103.6	SS /Black Nitride	Single Groove
TIVN-1048	Intake Valve	OS	39.5	5.97	103.6	SS /Black Nitride	Single Groove
TEVN-1045	Exhaust Valve	STD	30.5	5.96	103.6	SS /Black Nitride	Single Groove
TEVI-1047	Exhaust Valve	OS	31.5	5.96	103.6	Inconel-Nimonic	Single Groove
TEVI-1048	Exhaust Valve	OS	32.5	5.96	103.6	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-EC3025-2RZ										
26.6	19.6	19.4	14.2	77lbs @35.6mm	205lbs @10mm	13.8	21.8	12.8	SPR-EC3025D	RET-EC3020/T6P	SEAT-3020-2RZ	
PART NUMBER:		SPRK-EC3027-2RZ										
26.6	19.6	19.6	14.2	108lbs @35.6mm	225lbs @10mm	13.4	22.2	11.7	SPR-EC3027D	RET-EC3020/T6P	SEAT-3020-2RZ	



CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.28+	31	25.5	3.28mm + Shim 1.45-3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Keepers	
VS-TS6I	Valve Seals	
VS-TS6E	Valve Seals	

Toyota

2TR-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-2045	Intake Valve	STD	37.5	5.47	106.3	SS /Black Nitride	Single Groove
TIVN-2047	Intake Valve	OS	38.5	5.47	106.3	SS /Black Nitride	Single Groove
TEVN-2045	Exhaust Valve	STD	31.5	5.47	103.6	SS /Black Nitride	Single Groove
TEVN-2047	Exhaust Valve	OS	32.5	5.47	103.6	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TU24										
24.5	17.9	Single	Single	76lbs @35.8mm	126lbs @10mm	12	23	5	SPR-TU24	RET-TU24/T1		
PART NUMBER:		SPRK-EC3025-2TR										
26.6	19.6	19.4	14.2	65lbs @37mm	193lbs @10mm	11.7	21.8	12.8	SPR-EC3025/2TR	RET-EC3020/T55	SEAT-3020-2RZ	
PART NUMBER:		SPRK-EC3027-2TR										
26.6	19.6	19.6	14.2	85lbs @37mm	203lbs @10mm	11.5	22.2	11.7	SPR-EC3027/2TR	RET-EC3020/T55	SEAT-3020-2RZ	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5I	Valve Seals	
VS-T5.5I-16	Valve Seals	



Toyota

5VZ-FE DOHC

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1040	Intake Valve	STD	34	5.97	95.15	SS /Black Nitride	Single Groove
TEVN-1040	Exhaust Valve	STD	27.5	5.96	94.9	SS /Black Nitride	Single Groove

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6T-ST	Valve Locks	

Toyota

1FZ-FE I6

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1083F	Intake Valve	OS	39.5	6.97	98.8	SS /Black Nitride	Single Groove
TIVN-1083D	Intake Valve	OS	39.5	6.97	98.8	SS /Black Nitride	Single Groove
TIVT-1083F	Intake Valve	OS	39.5	6.97	98.8	Titanium	Single Groove
TEVN-1083F	Exhaust Valve	OS	33.5	6.97	98.1	SS /Black Nitride	Single Groove
TEVN-1083D	Exhaust Valve	OS	33.5	6.97	98.1	SS /Black Nitride	Single Groove
TEVT-1083F	Exhaust Valve	OS	33.5	6.97	98.1	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H1002D-1FZ										
29.1	21.85	20.5	15.5	50lbs @36.2mm	160lbs @11mm	14	19.5	10	SPR-H1002D	RET-H70/T1	SEAT-H/N240	
PART NUMBER:		SPRK-H100DR-1FZ										
30.2	22.2	22.2	16.8	65lbs @36.2mm	197lbs @11mm	15.5	20.5	12	SPR-H100DR	RET-H70/T1	SEAT-H/N240	
PART NUMBER:		SPRK-H1000D-1FZ										
29.65	21.85	20.5	15.5	82lbs @36.2mm	208lbs @11mm	15.5	20.7	11.5	SPR-H1000D	RET-H70/T1	SEAT-H/N240	
PART NUMBER:		SPRK-H1005D-1FZ										
29.65	21.85	20.5	15.5	100lbs @36.2mm	226lbs @11mm	14.7	21.5	11.5	SPR-H1005D	RET-H70/T1	SEAT-H/N240	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-34-3.5+	34	26	3.5mm + Shim 1.45- 3.50mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T7E	Valve Seals	
VS-T7E-24	Valve Seals	



Toyota

2UZ-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1093D	Intake Valve	OS	36	5.48	95.05	SS /Black Nitride	Single Groove
TEVI-1093D	Exhaust Valve	OS	30.5	5.47	95.1	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TU24										
24.5	17.9	Single	Single	80lbs @35mm	130lbs @10mm	12	23	5	SPR-TU24	RET-TU24/T1		

Toyota

3UZ-FE V8

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1093D	Intake Valve	OS	36	5.48	95.05	SS /Black Nitride	Single Groove
TEVI-1093D	Exhaust Valve	OS	30.5	5.47	95.1	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TU24										
24.5	17.9	Single	Single	80lbs @35mm	130lbs @10mm	12	23	5	SPR-TU24	RET-TU24/T1		

Toyota

3UR-FE V8 / 3.2L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-3039F	Intake Valve	OS	39	5.47	106.1	SS /Black Nitride	Single Groove
TEVN-3033F	Exhaust Valve	OS	33	5.47	110.6	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-EC3025D-3UR										
26.6	19.6	19.4	14.2	62lbs @37.8mm	193lbs @10mm	13.9	21.8	12.8	SPR-EC3025D	RET-EC3025/T55	SEAT-F4R-EX	
PART NUMBER:		SPRK-EC3027D-3UR										
26.6	19.6	19.4	14.2	82lbs @37.8mm	200lbs @10mm	14.7	22.2	11.7	SPR-EC3027D	RET-EC3025/T55	SEAT-F4R-EX	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TFRS55-E	Valve Guides	10.05	41.3	
GDE-TFRS55-I	Valve Guides	10.05	37	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-SU5.5-EI	Valve Seals	
VS-SU5.5-EI-32	Valve Seals	



Toyota

1GR-FE

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-1052F	Intake Valve	OS	37.5	5.47	107	SS /Black Nitride	Single Groove
TIVN-1053F	Intake Valve	OS	38	5.47	107	SS /Black Nitride	Single Groove
TEVN-1052F	Exhaust Valve	OS	30.5	5.46	105.9	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1012-T1GR										
27.5	20	20	15.2	61lbs @35.2mm	173lbs @10mm	15	20	9.6	SPR-TS1012	RET-K20A3/T1	SEAT-TS/1GR	
PART NUMBER:		SPRK-TS1015-T1GR										
27.5	20	20	15.2	71lbs @35.2mm	198lbs @10mm	14.3	20.7	12.7	SPR-TS1015	RET-K20A3/T1	SEAT-TS/1GR	
PART NUMBER:		SPRK-H1007BE-T1GR										
28	18.8	24.2	14.5	120lbs @35.9mm	255lbs @10mm	13.7	22.8	13.5	SPR-H1007BE	RET-H55BE-T1		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TS55-I	Valve Guides	10.3	38.5	
GDE-TS55-E	Valve Guides	10.3	40.5	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-31-3.38+	31	25.5	3.78mm	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	
VS-T5.5-E	Valve Seals	

Toyota

1AR-FE 4 / 2.7L

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-EC3027-1AR										
26.6	19.6	19.6	14.2	74lbs @38.6mm	185lbs @10mm	15.3	20.7	11.1	SPR-EC3027D	RET-EC3020/T1		

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	
VS-T5.5-E	Valve Seals	

Toyota

FR-S 4U-GSE / BRZ FA20

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SIVN-1050	Intake Valve	STD	35	5.46	103.3	SS /Black Nitride	Single Groove
SEVI-1050	Exhaust Valve	STD	29	5.45	95.15	Inconel-Nimonic	Single Groove
SIVN-1050-2	Intake Valve	STD	35	5.46	105	SS /Black Nitride	Single Groove
SIVN-1052-2	Intake Valve	OS	36	5.46	105	SS /Black Nitride	Single Groove
SEVI-1050-2	Exhaust Valve	STD	29	5.45	97.7	Inconel-Nimonic	Single Groove
SEVI-1052-2	Exhaust Valve	OS	30	5.45	97.7	Inconel-Nimonic	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-H1002BRZ-BE									
29.1	21.3	23	23	72lbs @33.5mm	170lbs @10mm	13	19	9.7	SPR-H1002BRZ-BE	RET-H55BE-BRZ	SEAT-H1002D-BRZ-2
PART NUMBER:		SPRK-1002-BRZ									
29.05	21.85	20.5	15.5	74lbs @33.5mm	174lbs @10mm	14	19.5	10	SPR-H1002BR	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-100-BRZ									
30.2	22.2	22.2	16.8	87lbs @33.5mm	212lbs @10mm	15	18.5	12.5	SPR-100-BRZ	RET-H1000-BRZ	SEAT-H1002D-BRZ
PART NUMBER:		SPRK-200-BRZ									
30.2	22.2	22.2	16.8	100lbs @33.5mm	222lbs @10mm	13.50	20	12.2	SPR-100-BRZ	RET-H1000-BRZ	SEAT-H1002D-BRZ

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-TFRS55-I	Valve Guides	10.05	37	
GDE-TFRS55-E	Valve Guides	10.05	41.3	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-SU5.5-EI	Valve Seals	
VS-SU5.5-EI-16	Valve Seals	

CONNECTING RODS

PART NUMBER	C-C (MM)	PE BORE (MM)	PE WIDTH (MM)	BE BORE (MM)	BE WIDTH (MM)	WEIGHT (GRS)
CR-FA20-H129.30	129.38	22	21.4	53	21.4	533.9

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-TFRS-86-CR12.5													
86	STD	12.5:1	-0.2	39	32.5	85.85	X	129.36	22	4032	343	GNH8600	A/N
PART NUMBER: P4-TFRS-86-CR9.5													
86	STD	9.5:1	-15.5	39	32.5	85.85	X	129.36	22	4032	339	GNH8600	A/N

Toyota

G16E-GR / YARIS / COROLLA GR

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
TIVN-2033	Intake Valve	STD	32.8	5.468	113.6	SS /Black Nitride	Single Groove
TEVI-2033-HS	Exhaust Valve	STD	32	5.465	117.1	Sodium Filled	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-FCO-BE1 (Intake)												
26.2	18	21.3	13	71lbs @42.6mm	169lbs @10mm	17	25	9.8	SPR-FCO-BE1	OEM	OEM	
PART NUMBER: SPRK-FCO-BE2 (Intake & Exhaust)												
26.2	18	21.3	13	90lbs @42.6mm	212lbs @10mm	17	25.6	12.2	SPR-FCO-BE2	OEM	OEM	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-T5.5-I	Valve Seals	Intake
VS-T5.5-E	Valve Seals	Exhaust
	Lash Caps	OEM 7mm OD
GDE-TS55-EI-L	Valve Guide	



VW

VR6 / 2.8L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1007	Intake Valve	STD	39	6.97	105.95	SS /Black Nitride	Triple Groove
VWIVN-1010	Intake Valve	OS	41	6.97	105.95	SS /Black Nitride	Triple Groove
VWIVN-1011	Intake Valve	OS	42	6.97	105.95	SS /Black Nitride	Triple Groove
VWEVN-1007	Exhaust Valve	STD	34.2	6.95	106.95	SS /Black Nitride	Triple Groove
VWEVN-1010	Exhaust Valve	OS	36	6.95	106.95	SS /Black Nitride	Triple Groove
VWEVI-1010	Exhaust Valve	OS	36	6.95	106.95	Inconel-Nimonic	Triple Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-V2093-4-12										
30.4	23.2	21.9	16.5	77lbs @33mm	229lbs @12mm	14.3	18.7/15.3	12.7	SPR-V2093	RET-021		

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-14.7LC	35	26	14.7mm for 7mm Lash Caps	
CF-35-16.7LC	35	26	16.7mm for 7mm Lash Caps	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-T	Valve Locks	
KPR-VW7-T-24	Valve Locks	
VS-VW7-I	Valve Seals	
VS-VW7-I-6	Valve Seals	
VS-VW7-E	Valve Seals	
VS-VW7-E-6	Valve Seals	

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL
HG-VWVR6-82.5-0.65T	Head Gaskets	82.5	0.65	MLS
HG-VWVR6-84.1-065T	Head Gaskets	84.1	0.65	MLS

VW

1.8T AEB / 2.7T APB / 5V/CYL

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
AIVN-1103	Intake Valve	STD	26.9	5.96	105.1	SS /Black Nitride	Triple Groove
AIVN-1103S	Intake Valve	STD	26.9	5.96	105.1	SS /Black Nitride	Single Groove
AIVN-1106S	Intake Valve	OS	27.9	5.96	105.1	SS /Black Nitride	Single Groove
AEVN-1103	Exhaust Valve	STD	29.9	5.94	103.9	SS /Black Nitride	Triple Groove
AEVI-1103	Exhaust Valve	STD	29.9	5.94	103.9	Inconel-Nimonic	Triple Groove
AEVI-1103S	Exhaust Valve	STD	29.9	5.94	103.9	Inconel-Nimonic	Single Groove
AEVI-1106S	Exhaust Valve	OS	30.9	5.94	103.9	Inconel-Nimonic	Single Groove
AEVI-1103S-HS	Exhaust Valve	STD	29.9	5.94	103.9	Sodium Filled	Single Groove
AEVI-1106S-HS	Exhaust Valve	OS	30.9	5.94	103.9	Sodium Filled	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-A2095 (intake)										
20.6	14.4	Single		60lbs @36.6mm	133lbs @11mm	13.6	23	6.7	SPR-A2095	RET-AU-5VI/T2	SEAT-V2093-16	Optional shim SS-3004
PART NUMBER:		SPRK-H1002D/AU (exhaust)										
29.1	21.9	20.5	15.5	80lbs @33.2mm	200lbs @11mm	13.7	19.5	10	SPR-H1002D/AU	RET-AU5VE/T1	SEAT-H1000	Optional shim SS-3042
PART NUMBER:		SPRK-H100DR/AU (Exhaust Optional)										
30.2	22.2	22.2	16.8	91lbs @33.2mm	228lbs @11mm	14.7	18.5	12.5	SPR-H100DR/AU	RET-AU5VE/T1	SEAT-H1000	Optional shim SS-3042



VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-AU18T	Valve Guides	11.045	36.15	Oversized available for Intake & Exhaust

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-24/15	24	24.2	15	
CF-33.5/15.5	33.5	25.8	15.5	

COMPONENTS

PART NUMBER	NAME	NOTES
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	
KPR-6S/7S	Keepers	Single Groove
KPR-VW6-T	Keepers	Triple Groove

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOMEDISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATERIAL	WEIGHT (GRS)	RING PART #	APPLICATION
PART NUMBER: P4-VW18T81-N4													
81	STD	9:3:1	-4	44	32.7	86.4	R	144	20	4032	280	GNH8100	T/N
PART NUMBER: P4-VW18T815-N4													
81.5	.5	9:3:1	-4	44	32.7	86.4	R	144	20	4032	285	GNH8150	T/N
PART NUMBER: P4-VW18T82-N4													
82	1	9:4:1	-4	44	32.7	86.4	R	144	20	4032	292	GNH8200	T/N
PART NUMBER: P4-VW18T8250-N4													
82.5	1.5	9:5:1	-4	44	32.7	86.4	R	144	20	4032	292	GNH8250	T/N
PART NUMBER: P4-VW18T83-N4													
83	2	9:6:1	-4	44	32.7	86.4	R	144	20	4032	292	GNH8300	T/N
PART NUMBER: P4-VW18T83-N8													
83	2	8:8:1	-8.4	44	32.7	86.4	R	144	20	4032	292	GNH8300	T/N
PART NUMBER: P4-VW18T82.5-N17ST2 STROKER 95.5mm													
82.5	1.5	9:1	-17	44	28.15	95.5	R	144	20	4032	268	GNH8250	T/N
PART NUMBER: P4-VW18T825-N15ST-H13 STROKER 92.8mm													
82.5	1.5	9:1	-15	44	29.5	92.8	R	144	20	4032	298	GNH8300	T/N

PISTONS

BORE (MM)	OVERSIZE (MM)	COMP RATIO	DOVE DISH CC	HEAD CC	COMP HEIGHT (MM)	STROKE (MM)	SKIRT STYLE	ROD LENGTH (MM)	PIN DIAM (MM)	MATE-RIAL	WEIGHT (GRS)	RING PART #	APPLI-CATION
PART NUMBER: P4-VW18T83-N15ST-H13 STROKER 92.8mm													
83	2	8.7	-15	44	29.5	92.8	R	144	20	4032	298	GNH8300	T/N
PART NUMBER: P4-VW18T835-N15ST STROKER 92.8mm													
83.5	2.5	8.7	-15	44	29.5	92.8	R	144	20	4032	298	GNH8350	T/N

HEAD GASKET

PART NUMBER	NAME	BORE (MM)	THICKNESS (MM)	MATERIAL	NOTES
HG-VW18T-83-1.4T	Head Gaskets	83	1.4	MLS	

Audi

V8 40V / 4.2L (BHF / BHK)

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
AIVN-1206S	Intake Valve	OS	27.9	5.96	96.55	SS /Black Nitride	Triple Groove
AEVI-1206S	Exhaust Valve	OS	30.9	5.94	94.8	Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-A2095 (intake)												
20.6	14.4	Single		60lbs @36.6mm	133lbs @11mm	11	23	6.7	SPR-A2095	RET-AU-5VI/T2		
PART NUMBER: SPRK-H1002D/AU (exhaust)												
29.10	21.9	20.5	15.5	75lbs @33.7mm	180lbs @10.5mm	12	19.5	10	SPR-H1002D/AU	RET-AU5VE/T5	SEAT-H1000	



COMPONENTS

PART NUMBER	NAME	NOTES
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	
KPR-6S/7	Keepers	

VW

1.8 / 2.0 LTS / 2.2LT 5CYL

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1034F	Intake Valve	STD	32	6.97	95.5	SS /Black Nitride	Single Groove
VWIVN-1034	Intake Valve	STD	32	6.97	95.5	SS /Black Nitride	Single Groove
VWIVN-1035	Intake Valve	OS	32.5	6.97	95.5	SS /Black Nitride	Single Groove
VWIVN-1038	Intake Valve	OS	34	6.97	95.5	SS /Black Nitride	Single Groove
VWEVI-1032F	Exhaust Valve	STD	27	6.96	98.2	Inconel-Nimonic	Single Groove
VWEVN-1034	Exhaust Valve	STD	28	6.96	98.2	SS /Black Nitride	Single Groove
VWEVI-1034F	Exhaust Valve	STD	28	6.96	98.2	Inconel-Nimonic	Single Groove
VWEVN-1035	Exhaust Valve	OS	28.5	6.96	98.2	SS /Black Nitride	Single Groove
VWEVI-1035	Exhaust Valve	OS	28.5	6.96	98.2	Inconel-Nimonic	Single Groove
VWEVI-1037	Exhaust Valve	OS	29.5	6.96	98.2	Inconel-Nimonic	Single Groove
VWEVI-1035-HS	Exhaust Valve	OS	28.5	6.96	98.2	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-V2093-4-16										
30.4	23.2	21.9	16.5	82lbs @31.7mm	224lbs @11.5mm	13	18.7	12.5	SPR-V2093-4-20	RET-027	SEAT-V2093-16	
PART NUMBER:		SPRK-V2093-4-20										
30.4	23.2	21.9	16.5	82lbs @31.7mm	224lbs @11.5mm	13	18.7	12.5	SPR-V2093-4-20-20	RET-027	SEAT-V2093-16	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-VW8V-7A	Valve Guides	12.06	40	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-35-14.7LC	35	26	14.7mm for 7mm Lash Caps	
CF-35-16.7LC	35	26	16.7mm for 7mm Lash Caps	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-S	Valve Locks	
VS-VW7-I	Valve Seals	
VS-VW7-E	Valve Seals	

VW

1.8 / 2.0 LTS

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1014	Intake Valve	STD	40	6.97	91.6	SS /Black Nitride	Single Groove
VWIVN-1017	Intake Valve	OS	41	6.97	91.6	SS /Black Nitride	Single Groove
VWIVN-1019	Intake Valve	OS	42	6.97	92.2	SS /Black Nitride	Single Groove
VWIVN-1024	Intake Valve	STD	40	6.97	98.6	SS /Black Nitride	Single Groove
VWIVN-1027	Intake Valve	OS	41	6.97	98.6	SS /Black Nitride	Single Groove
VWIVN-1029	Intake Valve	OS	42	6.97	98.6	SS /Black Nitride	Single Groove
VWEVN-1014	Exhaust Valve	STD	33	6.96	90.95	SS /Black Nitride	Single Groove
VWEVI-1015	Exhaust Valve	OS	33.5	6.96	90.95	Inconel-Nimonic	Single Groove
VWEVN-1017	Exhaust Valve	OS	34	6.96	90.95	SS /Black Nitride	Single Groove
VWEVN-1019	Exhaust Valve	OS	35	6.96	91.55	SS /Black Nitride	Single Groove
VWEVN-1024	Exhaust Valve	STD	33	6.96	98.4	SS /Black Nitride	Single Groove
VWEVN-1027	Exhaust Valve	OS	34	6.96	98.4	SS /Black Nitride	Single Groove
VWEVN-1029	Exhaust Valve	OS	35	6.96	98.4	SS /Black Nitride	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN						
PART NUMBER:		SPRK-V2091/4									
30.4	23.2	21.9	16.5	80lbs @33mm	192lbs @10mm	14	18.7	11.2	SPR-V2091/4	RET-021	SEAT-VW8V-1
PART NUMBER:		SPRK-V1107 (dual)									
31.1	23.1	23.1	17.4	92lbs @39.75mm	200lbs @10mm	15	22	11.17	SPR-V1107 (dual)	RET-026 (8mm stem) RET-021 (7mm stem)	SEAT-VW8V-1

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-VW8V-7A	Intake Valve Guides	12.06	40	(8mm to 7mm valve conversion)
GDE-VW8V-7A	Exhaust Valve Guides	12.06	40	(8mm to 7mm valve conversion)

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-VW7-T	Keepers	
VS-VW7-I	Valve Seals	
VS-VW7-E	Valve Seals	

VW

R32 VR6 / 3.6L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1044SL	Intake Valve	STD	33.15	5.97	136.4	SS /Black Nitride	Single Groove
VWIVN-1044SS	Intake Valve	STD	33.15	5.97	102.5	SS /Black Nitride	Single Groove
VWEVI-1044SL	Exhaust Valve	STD	30.15	5.96	136.1	Inconel-Nimonic	Single Groove
VWEVI-1044SS	Exhaust Valve	STD	30.15	5.96	102.2	Inconel-Nimonic	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TC25D-VR6										
25	18	18	13	80lbs @36mm	205lbs @10mm	13.9	21/17	12.6	SPR-TC25D	RET-K20A3/TC25	SEAT-VR624	
PART NUMBER:		SPRK-TC25D/VR6-36										
25	18	18	13	76lbs @36.4mm	205lbs @10mm	13.9	21/17	12.6	SPR-TC25D	RET-K20A3/TC25	SEAT-TC25-36	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Keepers	

VW ; Audi

EA113 / EA888

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1002T	Intake Valve	STD	33.85	5.98	103.9	SS /Black Nitride	Triple Groove
VWIVN-1002S	Intake Valve	STD	33.85	5.98	103.9	SS /Black Nitride	Single Groove
VWIVN-1004S	Intake Valve	OSD	34.85	5.98	103.9	SS /Black Nitride	Single Groove
VWEVI-1002T	Exhaust Valve	STD	28	5.96	101.8	Inconel-Nimonic	Triple Groove
VWEVI-1002S	Exhaust Valve	STD	28	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1004S	Exhaust Valve	OS	29	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1006S	Exhaust Valve	OS	30	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1002S-HS	Exhaust Valve	STD	28	5.96	101.8	Sodium filled Inconel	Single Groove



SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-A2416-N2								
24	16.5			73lbs @37.4mm; 85lbs @36mm	178lbs @10mm; 190lbs @10mm	12.5	24.9	10.5	SPR-A2416N	RET- A2416-N2
PART NUMBER:		SPRK-A2416-BE								
24 (bot-tom)	12.7 (top)			91lbs @37.4mm; 105lbs @36mm	190lbs @10mm; 202lbs @10mm	11	24.9	9.8	SPR-A2416N-BE	RET- A2416-N2
PART NUMBER:		SPRK-A2416-BE-5								
24 (bot-tom)	12.7 (top)			91lbs @37.4mm; 105lbs @36mm	190lbs @10mm; 202lbs @10mm	11	24.9	9.8	SPR-A2416-5	RET- A2416-N2

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-AU18T	Valve Guides	11.045	36.15	
GDE-AU18T-OS	Valve Guides			

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Keepers	
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	

VW

2.5L 5CYL / 2.5 TFSI

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
N/A	Intake Valve	STD	32.35	5.98	103.9	SS /Black Nitride	Single Groove
VWIVN-1001S	Intake Valve	OS	33	5.98	103.9	SS /Black Nitride	Single Groove
VWIVN-1002S	Intake Valve	OS	33.85	5.98	103.9	SS /Black Nitride	Single Groove
VWEVI-1002S	Exhaust Valve	OS	28	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1004S	Exhaust Valve	OS	29	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1006S	Exhaust Valve	OS	30	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1002S-HS	Exhaust Valve	OS	28	5.96	101.8	Sodium Filled	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN					
PART NUMBER:		SPRK-A2416-5 Intake								
24	16.5	Intake		73lbs @37.4mm	178lbs @10mm	12.5	24.9	10.5	SPR-A2416-5	RET-A2416-N2
PART NUMBER:		SPRK-A2416-5 Exhaust								
24	16.5	Exhaust		85lbs @36mm	190lbs @10mm	11	24.9	10.5	SPR-A2416-5	RET-A2416-N2

COMPONENTS

PART NUMBER	NAME	NOTES
VS-VBM6-I	Valve Seals	Intake
VS-VBM6-E	Valve Seals	Exhaust
KPR-6S/7	Keepers	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-AU18T	Valve Guides	11.045	36.15	



Audi

R8 V8 / 4.2L / 5.0L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1002S	Intake Valve	STD	33.85	5.98	103.9	SS /Black Nitride	Single Groove
VWIVN-1004S	Intake Valve	OS	34.85	5.98	103.9	SS /Black Nitride	Single Groove
VWEVI-1002S	Exhaust Valve	STD	28	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1004S	Exhaust Valve	OS	29	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1006S	Exhaust Valve	OS	30	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1002S-HS	Exhaust Valve	STD	28	5.96	101.8	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-A2416-V8										
24	16.5			73lbs @ 37.4mm; 85lbs @ 36mm	178lbs @ 10mm; 190lbs @ 10mm	12.5	24.9	10.5	SPR-A2416	RET-A2416-N2	SEAT-H1000	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-AU18T	Valve Guides	11.045	36.15	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Valve Locks	
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	

Audi

R8 / 5.2L

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
VWIVN-1002S	Intake Valve	STD	33.85	5.98	103.9	SS /Black Nitride	Single Groove
VWIVN-1004S	Intake Valve	OS	34.85	5.98	103.9	SS /Black Nitride	Single Groove
VWEVI-1002S	Exhaust Valve	STD	28	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1004S	Exhaust Valve	OS	29	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1006S	Exhaust Valve	OS	30	5.96	101.8	Inconel-Nimonic	Single Groove
VWEVI-1002S-HS	Exhaust Valve	STD	28	5.96	101.8	Sodium filled Inconel	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-A2416-V10										
24	16.5	Ex-haust	Ex-haust	73lbs @ 37.4mm; 85lbs @ 36mm	178lbs @ 10mm; 190lbs @ 10mm	11	24.9	10.5	SPR-A2416	RET-A2416-N2		

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-AU18T	Valve Guides	11.045	36.15	

COMPONENTS

PART NUMBER	NAME	NOTES
KPR-6S-7	Valve Locks	
VS-VBM6-I	Valve Seals	
VS-VBM6-E	Valve Seals	



OFF ROAD

STREET

SXS

WATERCRAFT

POWERSPORTS PARTS





Honda

CRF 250R 2004-2007

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-CRF250	Intake Valve	STD	31	4.95	83.37	SS /Black Nitride	Single Groove
HIVT-CRF250	Intake Valve	STD	31	4.95	83.37	Titanium	Single Groove
HEVN-CRF250	Exhaust Valve	STD	26	4.95	82.25	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H3058										
19	13	Single	Single	30lbs @ 34mm	115lbs @ 10mm;	15.3	19	8.5	SPR-H3058	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-22.5/3.0	22.5	3	
CF-22.5/3.0-DLC	22.5	3	DLC Coated
CF-23/3.0-DLC	23	3	DLC Coated
CF-24.5/3.0	24.5	3	Oversized

Honda

CRF 250X 2004-20013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-CRF250	Intake Valve	STD	31	4.95	83.37	SS /Black Nitride	Single Groove
HIVT-CRF250	Intake Valve	STD	31	4.95	83.37	Titanium	Single Groove
HEVN-CRF250	Exhaust Valve	STD	26	4.95	82.25	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H3058										
19	13	Single	Single	30lbs @ 34mm	115lbs @10mm;	15.3	19	8.5	SPR-H3058	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-22.5/3.0	22.5	3	
CF-22.5/3.0-DLC	22.5	3	DLC Coated
CF-23/3.0-DLC	23	3	DLC Coated
CF-24.5/3.0	24.5	3	Oversized

Honda

CRF 250R 2008-2009

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVT-CRF250-08	Intake Valve	STD	31	4.98	83.31	Titanium	Single Groove
HEVN-CRF250-08	Exhaust Valve	STD	26	4.45	82.25	SS /Black Nitride	Single Groove
HEVN-CRF250-08F	Exhaust Valve	STD	26	4.45	82.25	SS /Black Nitride	Single Groove

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-22.5/3.0	22.5	3	
CF-22.5/3.0-DLC	22.5	3	DLC Coated
CF-23/3.0-DLC	23	3	DLC Coated
CF-24.5/3.0	24.5	3	Oversized

Honda

CRF 250R 2018

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVT-CRF-2018	Intake Valve	STD	33	4.95	88	Titanium	Single Groove
HIVT-CRF-2018	Exhaust Valve	STD	26	4.95	80.7	SS /Black Nitride	Single Groove

Honda

CRF 250R 2010-2017

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVT-CRF250-10	Intake Valve	STD	30.5	4.98	89	Titanium	Single Groove
HIVT-CRF250-10-50-1	Intake Valve	STD	31.5	4.98	89	Titanium	Single Groove
HEVN-CRF250-10	Exhaust Valve		25	4.47	84.23	SS /Black Nitride	Single Groove
HEVT-CRF250F-10-50	Exhaust Valve		25	4.97	84.23	Titanium	Single Groove
HEVT-CRF250F-10-50-1	Exhaust Valve	STD	26	4.97	84.23	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H3058										
19	13	Single	Single	30lbs @ 34mm	115lbs @10mm;	15.3	19	8.5	SPR-H3058	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-22.5/3.0	22.5	3	
CF-22.5/3.0-DLC	22.5	3	DLC Coated
CF-23/3.0-DLC	23	3	DLC Coated
CF-24.5/3.0	24.5	3	Oversized

Honda

CRF 450R 2002-2008

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVT-CRF450	Intake Valve	STD	36	5.47	87.7	Titanium	Single Groove
HEVN-CRF-450	Exhaust Valve	STD	31	4.96	84.28	SS /Black Nitride	Single Groove
HEVT-CRF-450	Exhaust Valve	STD	31	4.96	84.28	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H450										
23.5	16.5	Single	Single	45lbs @ 35.75mm	155lbs @10mm;	12.75	23	11	SPR-H450	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-26/3.0	26	3	
CF-26/3.0-DLC	26	3	DLC Coated
CF-28-3.0	28	3	Oversized

Honda

CRF 450R

2009-2012

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVT-CRF450-09	Intake Valve	STD	36	4.97	78.7	Titanium	Single Groove
HEVN-CRF-450-09	Exhaust Valve	STD	30	4.96	80.518	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART#	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H450-09										
23.5	16.5	Single	Single	53lbs @ 34.10mm	141lbs @10mm;	12.10	22	8.8	SPR-H450-09	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-26/3.0	26	3	
CF-26/3.0-DLC	26	3	DLC Coated
CF-28-3.0	28	3	Oversized

Honda

CRF 450X

2005-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
HIVN-CF450X	Intake Valve	STD	35	5.48	84.6	SS /Black Nitride	Single Groove

Kawasaki

KX 250F

2003-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KWIVT-KX250F	Intake Valve	STD	31	4.48	79.24	Titanium	Single Groove
KWIVT-KX250F-50	Intake Valve	STD	31	4.48	79.24	Titanium	Single Groove
KWIVN-KX250F	Intake Valve	STD	31	4.48	79.24	Titanium	Single Groove
KWEVT-KX250F	Exhaust Valve	STD	25	4.46	79	Titanium	Single Groove
KWEVT-KX250F-50	Exhaust Valve	STD	25	4.46	79	Titanium	Single Groove

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-24.5/3.0	24.5	3		
CF-24.5/3.0DLC	24.5	3		DLC Coated
CF-26.5/2.7	26.5	2.7		Oversized

Kawasaki

KX 250F

2017

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KWIVT-KX250F-17	Intake Valve	STD	31	4.48	88.25	Titanium	Single Groove
KWEVT-KX250F-17	Exhaust Valve	STD	25	4.47	80.45	Titanium	Single Groove

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-24.5/3.0	24.5	3	
CF-24.5/3.0DLC	24.5	3	DLC Coated
CF-26.5/2.7	26.5	2.7	Oversized

Kawasaki

KX 450F 2006-2008

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KWIVT-KX450F-08	Intake Valve	STD	36	5.47	83.31	Titanium	Single Groove
KWEVT-KX450F-08	Exhaust Valve	STD	31	5.46	82	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-KX450										
25.60	19	19	14	60lbs @ 31.50mm	150lbs @ 24.5mm	14	17.5	12.8	SPR-KX450	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-28/3.0	28	3	
CF-28/3.0DLC	28	3	DLC Coated

Kawasaki

KX 450F

2009-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KWIVT-KX450F-13	Intake Valve	STD	36	5.47	78.23	Titanium	Single Groove
KWIVT-KX450F-13-50	Intake Valve	STD	36	5.47	78.23	Titanium	Single Groove
KWIVT-KX450F-13-50F-1	Intake Valve	STD	36	5.47	78.23	Titanium	Single Groove
KWEVT-KX450F-13	Exhaust Valve	STD	31	5.46	76.96	Titanium	Single Groove
KWEVT-KX450F-13-50F	Exhaust Valve	STD	31	5.46	76.96	Titanium	Single Groove
KWEVT-KX450F-13-50-05	Exhaust Valve	STD	31	5.46	76.96	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-KX450										
25.60	19	19	14	60lbs @ 31.50mm	150lbs @ 24.5mm	14	17.5	12.8	SPR-KX450	OEM Retainer	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-28/3.0	28	3	
CF-28/3.0DLC	28	3	DLC Coated

Kawasaki

NINJA ZX12

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KWIVN-3340	Intake Valve	STD	37.5	4.98	97.6	SS /Black Nitride	Single Groove
KWEVI-2830T	Exhaust Valve	STD	28.3	4.95	97.9	Titanium	Single Groove



KTM

250SX-F 2005-2012**VALVES**

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KTIVT-250SX-08	Intake Valve	STD	30.9	4.95	99.40	Titanium	Single Groove
KTIVN-250SX	Intake Valve	STD	30.9	4.95	99.40	SS /Black Nitride	Single Groove
KTEVT-250SX-12	Exhaust Valve	STD	26.70	4.96	92.90	Titanium	Single Groove
KTEVN-250SX	Exhaust Valve	STD	26.70	4.96	92.90	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-KTM250-05										
25.50	25.50	18.3	21.8	55lbs @ 34.3mm	170lbs @ 24.3mm	12.6	21.7	11.5	SPR-KTM250-05	OEM Retainer	OEM Seat	

KTM

250SX-F 2013-2017**VALVES**

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KTIVT-250SX-17	Intake Valve	STD	32.5	4.97	96	Titanium	Single Groove
KTEVT-250SX-17	Exhaust Valve	STD	26.5	4.98	98.5	Titanium	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-KTM250-08										
20.8	14.2	Single	Single	58lbs @ 34.3mm	160lbs @ 24.3mm	13.8	20.5	10.2	SPR-KTM250-08	OEM Retainer	OEM Seat	

KTM

450SX-F

2002-2012

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KTIVN-450SX-12	Intake Valve	STD	40.25	5.98	87.90	Titanium	Single Groove
KTEVT-450SX12	Exhaust Valve	STD	31.7	5.98	87.90	Titanium	Single Groove

KTM

450SX-F

2013-2017

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
KTIVN-450SX-17	Intake Valve	STD	40	5.98	93.7	Titanium	Single Groove
KTEVT-450SX17	Exhaust Valve	STD	33.1	5.98	92.85	Titanium	Single Groove

Polaris

XP900

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
POLIVN-3450	Intake Valve	STD	34.5	5.47	95.7	SS /Black Nitride	Single Groove
POLIVN-3780	Intake Valve	OS	37.8	5.47	95.7	Titanium	Single Groove
POLEVN-3240	Exhaust Valve	STD	32.4	5.45	96.6	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-TS1012										
27.5	20	20	15.2	68lbs @ 34.3mm	171lbs @ 10mm	15	20	10.4	SPR-TS1012	RET-TS55-POL	SEAT-TSLS-1FL	No OEM Seat

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-31.15/2.50	31.15	2.5	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-POL55-LC + VS-5.5E	Valve Guides			

Polaris

XP1000

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
POLIVN-3780	Intake Valve	STD	37.8	5.48	95.8	SS /Black Nitride	Single Groove
POLIVN-3880	Intake Valve	OS	38.8	5.48	95.8	SS /Black Nitride	Single Groove
POLEVN-2920	Exhaust Valve	STD	29.2	5.46	96.6	SS /Black Nitride	Single Groove
POLEVI-3020	Exhaust Valve	OS	30.2	5.46	96.6	Titanium	Single Groove

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-31.15/2.50	31.15	2.5	

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-POL55-LC + VS-5.5E	Valve Guides			

Polaris

RZR 800

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-H100DR-POL												
29.7	21.9	21.9	16.9	67lbs @ 35.5mm	190lbs @ 10mm	17	18	12.35	SPR-H100DR-POL	RET-H100-POL	SEAT-TSLS-1FL	OEM Seat

Polaris

XP 700

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H100DR-POL										
29.7	21.9	21.9	16.9	67lbs @ 35.5mm	190lbs @ 10mm	17	18	12.35	SPR-H100DR-POL	RET-H100-POL	SEAT-TSLS-1FL	OEM Seat

Polaris

SPORTMAN 800TTV

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-H100DR-POL										
29.7	21.9	21.9	16.9	67lbs @ 35.5mm	190lbs @ 10mm	17	18	12.35	SPR-H100DR-POL	RET-H100-POL	SEAT-TSLS-1FL	OEM Seat

Sea Doo

4TEC 12V XRP / XRT

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SEAIVC-3860S	Intake Valve	STD	38	5.96	90.25	SS /Black Nitride	Single Groove
SEAEVI-3160S	Exhaust Valve	STD	31	5.95	90.7	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-EC3025D-SE										
26.6	19.6	19.6	14.2	85lbs @ 34.1mm	198lbs @ 10mm	15.7	19	12.3	SPR-EC3025D	RET-EC3020/SE		OEM Seat
PART NUMBER:		SPRK-EC3027-SE										
26.6	19.6	19.6	14.2	85lbs @ 34.1mm	143lbs @ 10mm	14	20.7	8.5	SPR-EC3027	RET-EC3020/SE		OEM Seat

Suzuki

RMZ 250

2004-2006

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SZIVT-250-06	Intake Valve	STD	31	4.46	79.24	Titanium	Single Groove
SZEVT-250-06	Exhaust Valve	STD	25	4.46	79.24	Titanium	Single Groove

Suzuki

RMZ 250

2007-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SZIVT-250-13	Intake Valve	STD	31	4.48	80.64	Titanium	Single Groove
SZEVN-250-13	Exhaust Valve	STD	25	4.47	80.9	SS /Black Nitride	Single Groove

Suzuki

RMZ 450

2005-2007

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SZIVT-450-07	Intake Valve	STD	36	4.97	82.42	Titanium	Single Groove
SZEVN-450-07	Exhaust Valve	STD	29	4.96	81.28	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-RM450 (intake)												
25	17.7	Single	Single	34lbs @ 29.5mm	96lbs @ 29.5mm	12.5	15	10.6	SPR-RM450	OEM		OEM Seat
PART NUMBER: SPRK-RM450E (exhaust)												
23.2	17	Single	Single	34lbs @ 29.5mm	96lbs @ 29.5mm	14.5	15	8.9	SPR-RM450E	OEM		OEM Seat

Suzuki

RMZ 450 2008-2012

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
SZIVT-450-12	Intake Valve	STD	36	5.47	81.95	Titanium	Single Groove
SZIVN-LT450	Intake Valve	STD	36	5.47	81.95	SS /Black Nitride	Single Groove
SZEVN-LT450	Exhaust Valve	STD	29	5.46	81	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER: SPRK-RM450 (intake)												
25	17.7	Single	Single	34lbs @ 29.5mm	96lbs @ 29.5mm	12.5	15	10.6	SPR-RM450	OEM		OEM Seat
PART NUMBER: SPRK-RM450E (exhaust)												
23.2	17	Single	Single	34lbs @ 29.5mm	96lbs @ 29.5mm	14.5	15	8.9	SPR-RM450E	OEM		OEM Seat

Yamaha

YZ 250F

2001-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVT-250-1	Intake Valve	STD	23	3.98	78.6	Titanium	Single Groove
YIVT-250-2	Intake Valve	STD	23	3.98	80.15	Titanium	Single Groove
YEVT-250	Exhaust Valve	STD	24.5	4.46	77.97	Titanium	Single Groove

Yamaha

YZ 250F

2015

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVT-YZ250/15-50	Intake Valve	STD	31	4.98	83.6	Titanium	Single Groove
YIVT-YZ250/15-50-1	Intake Valve	OS	32	4.98	83.6	Titanium	Single Groove
YIVT-YZ250/15-50	Exhaust Valve	STD	25	4.46	82.4	Titanium	Single Groove
YEVT-YZ250-15-50-1	Exhaust Valve	OS	26	4.46	82.4	Titanium	Single Groove

Yamaha

YZ 450F

2003-2010

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVT-YZ450-1	Intake Valve	STD	27	4.48	76.3	Titanium	Single Groove
YIVT-YZ450-2	Intake Valve	STD	27	4.48	77.2	Titanium	Single Groove
YIVN-YZ450-1	Intake Valve	STD	27	4.48	76.3	SS /Black Nitride	Single Groove
YIVN-YZ450-2	Intake Valve	STD	27	4.48	77.2	SS /Black Nitride	Single Groove
YEVN-YZ450	Exhaust Valve	STD	28	4.95	75.1	SS /Black Nitride	Single Groove

Yamaha

YZ 450F 2010-2013

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVN-YZ450F-10	Intake Valve	STD	36	5.48	83.8	SS /Black Nitride	Single Groove
YIVT-YZ450F-10	Intake Valve	STD	36	5.48	83.8	Titanium	Single Groove
YEVN-YZ450F-10	Exhaust Valve	STD	30	5.47	86	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-YZ450-10I (intake)										
22.8	15.3	Single	Single	75lbs @ 34.8mm	215lbs @ 24.8mm	11.8	23	14	SPR-RM450	OEM		OEM Seat
PART NUMBER:		SPRK-YZ450-10E (exhaust)										
19.5	13.5	Single	Single	50lbs @ 30.8mm	130lbs @ 20.8mm	11.3	19.5	8	SPR-RM450E	OEM		OEM Seat

Yamaha

YZ 450F 2010-2017

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVT-YZ450-17	Intake Valve	STD	37	5.48	89.95	Titanium	Single Groove
Y EVT-YZ450-17	Exhaust Valve	STD	30.5	5.47	80.65	Titanium	Single Groove

Yamaha

R6

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVT-YZF-R6	Intake Valve	STD	27	4.47	94.5	Titanium	Single Groove
YEVT-YZF-R6	Exhaust Valve	STD	23	4.46	95	Titanium	Single Groove

Yamaha

FRZ / SVHO

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVN-FZR34	Intake Valve	STD	34	5.48	90.8	SS /Black Nitride	Single Groove
YIVN-FZR35	Intake Valve	OS	35	5.48	90.8	SS /Black Nitride	Single Groove
YEVI-FZR29	Exhaust Valve	STD	29	5.47	89.95	SS /Black Nitride	Single Groove
YEVI-FZR30	Exhaust Valve	OS	30	5.47	89.95	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-EC3025D- FZR										
26.6	19.6	19.4	14.2	75lbs @ 34.7mm	198lbs @ 10mm	15.7	19	12.3	SPR-EC3025D	RET-YA3020	SEAT-YA3020	
PART NUMBER:		SPRK-EC3027S-FZR										
26.6	19.6	Single	Single	58lbs @ 34.7mm	143lbs @ 10mm	14	20.7	8.5	SPR-EC3027S	RET-YA3020	SEAT-YA3020	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	POST (MM)	NOTES
CF-30/3.3	30	3.3		

Yamaha

YZZ10004 / TR1 / TEXTRON WILDCAT XX 2019

VALVES

PART NUMBER	NAME		HEAD DIAM (MM)	STEM (MM)	LENGTH (MM)	MATERIAL	GROOVE
YIVN-YXZ1000R	Intake Valve	STD	31	4.45	88.85	SS /Black Nitride	Single Groove
YEVN-YXZ1000R	Exhaust Valve	STD	26	4.45	88.85	SS /Black Nitride	Single Groove
YEVI-YXZ1000R-1	Exhaust Valve	OS	27	4.45	88.85	SS /Black Nitride	Single Groove

SPRING KITS

OUTER SPRING		INNER SPRING		PRESSURE		MAX LIFT (MM)	COIL BLIND (MM)	RATE (LBS/MM)	SPRING PART #	RETAINER	SEAT LOCATOR	NOTE
OD (MM)	ID (MM)	OD (MM)	ID (MM)	SEAT	OPEN							
PART NUMBER:		SPRK-YXZ1000-1										
21.45	15.25	Single	Single	47lbs @ 34.7mm	145lbs @ 10mm	11.30	23.6	8.9	SPR-YXZ1000-1	RET-YA3020	OEM Seat	

CAM FOLLOWERS

PART NUMBER	DIAMETER (MM)	LENGTH (MM)	NOTES
CF-26.5/3.0+7.5	26.5	3	Requires OEM Retainer

VALVE GUIDES

PART NUMBER	NAME	OUTER DIAM (MM)	LENGTH (MM)	NOTES
GDE-YXZ-4.5E	Valve Guides			Intake & Exhaust
VS-YXZ4.5E	Valve Seals			

APPAREL



BAR

Made from ultra-soft ring-spun cotton. Supertech artwork is soft hand screen printed with special foil application. This shirt is tag less and is sized perfectly for people that want to win.

ST-Bar-S
ST-Bar-M
ST-Bar-L
ST-Bar-XL
ST-Bar-2XL



TONE

Made from ultra-soft ring-spun cotton. Supertech artwork is soft hand screen printed with special foil application. This shirt is tag less and is sized perfectly for people that want to win.

Tshirt-Tone-S
Tshirt-Tone-M
Tshirt-Tone-L
Tshirt-Tone-XL
Tshirt-Tone-2XL



CAMO ZIP

A feather lightweight water resistant full zip jacket with mesh interior pockets! This tech fabric feels soft and breathable against your skin!

[CamoZio-S](#)
[CamoZio-M](#)
[CamoZio-L](#)
[CamoZio-XL](#)
[CamoZio-2XL](#)



BAR HAT

Nothing keeps you looking and feeling more chill than this ultra-breathable, perforated cap. Cotton twill front panels/laser-cut perforated polyester mid and back panels. (Traditional trucker style)

[BarHat-OS](#)

WARRANTY DISCLAIMER

Due to the nature of the application, these parts are sold without any express warranty or any other implied warranty of merchantability, or fitness for a particular purpose.

Supertech Inc. shall not, under any circumstances, be liable for any special, incidental or consequential damages. Including but not limited to damage, or loss of property or equipment, loss of profits or revenue, costs of purchased or replacement goods, or claims of customers of the purchase, which may arise and/or result from sale, installation or use of these parts.

The sole obligation of Supertech Inc. shall be limited only to the products found to be defective, in either workmanship or materials. Supertech will only be accountable after inspection performed by our company. This Limited Warranty applies only to the original purchaser of the product and only covers the replacement or repair of the product at our discretion.

RETURN AUTHORIZATION

All merchandise must be authorized by a Supertech representative and include a copy of the original invoice and a description as to the reason for the return. No returns are accepted 30 days after the invoice date and all merchandise is subject to a 15% restocking fee. Any custom machined or manufactured parts made under customer specifications are non-returnable and all sales are final.



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