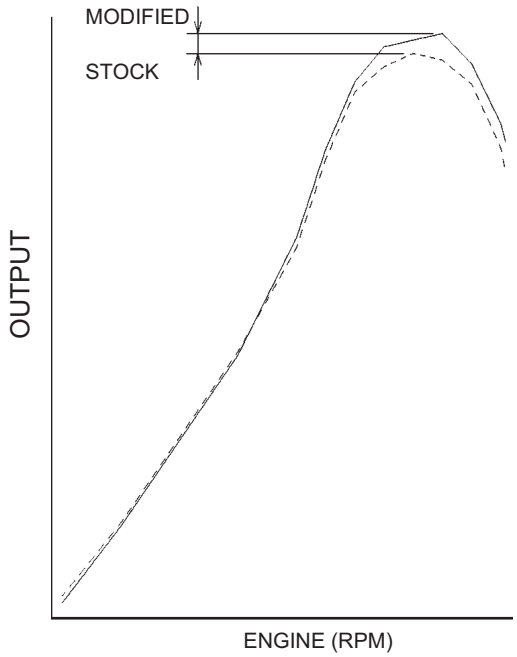
RACE TUNING INFORMATION

Subject

The following modifications increase and extend the powerband, and improve throttle response making the vehicle more competitive for the experienced racer.



CAUTION

Kawasaki cannot accept any responsibility for the results of the modifications described in this bulletin.
Whenever the power output of an engine is increased, the reliability and durability of the engine decrease. This is especially true of competition engines, which are highly stressed even in stock form.
For best results, engine modifications should be made by an experienced engine tuner.

Modification Procedures

Cylinder:

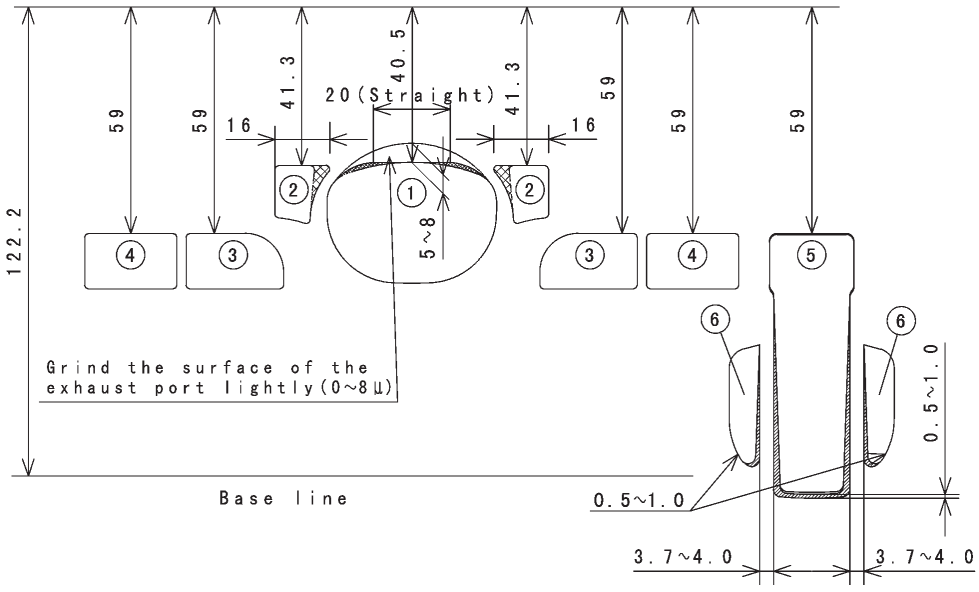
The following modifications increase midrange and high speed power while retaining low speed power.

Grind and smooth the dotted areas in the intake, exhaust, and scavenging ports (the areas in each port near the cylinder bore in particular).

Chamfer the exhaust port and sub-exhaust ports.

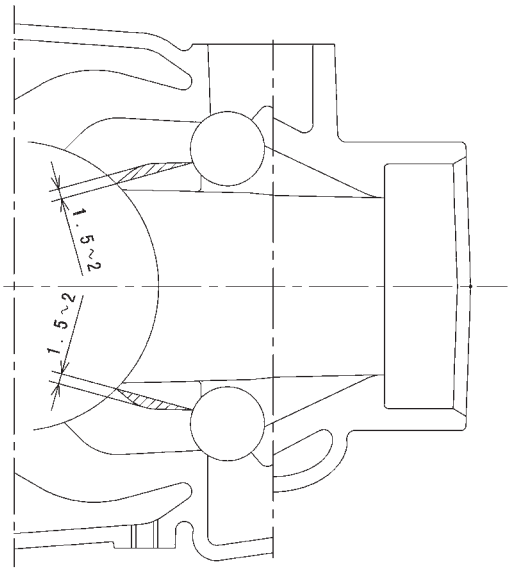
Chamfer the intake port.

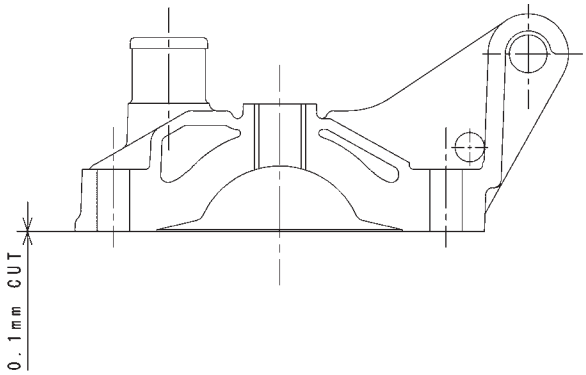
Adjust the scavenging port timing.

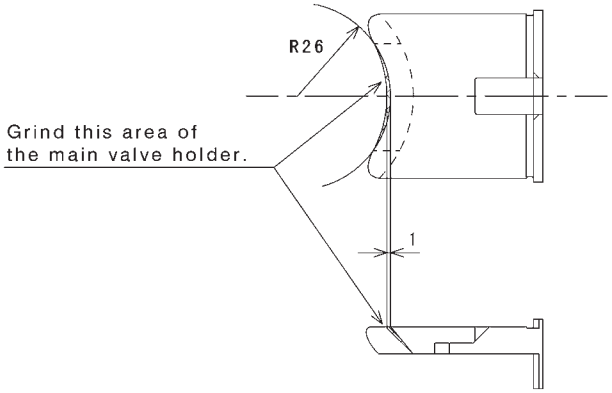


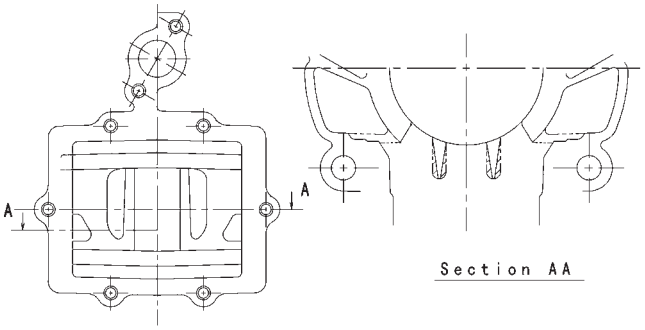
1. Exhaust Port
2. Sub-exhaust Ports
3. Scavenging ports
4. Sub-scavenging ports
5. Intake port
6. Sub-intake ports

SERVICE









CAUTION

Maintain the original shape of the ports, and chamfer the sharp edges to prevent ring damage.
Removing more material than specified may result in a loss of power.

Cylinder Head

Cut 0.1mm from the gasket surface of the cylinder head to raise the compression ratio.

Main Exhaust Valve

Remove material from the center of the main valve holder (Fig.5). Removing material from the main valve holder and chamfering the main exhaust port improves fuel flow.

Flywheel Magneto Rotor (Optional Parts)

Four (4) optional rotors are available. The standard flywheel can be substituted with one of those in the chart to better suit track conditions.

Select one of them according to the table.

Table of Inertia Moment

Part Number	Inertia Moment (kg-cm²)	Riding Conditions
21007-1402	4.5	Increase throttle response
21007-1403	4.9 (STD)	
21007-1404	5.3	
21007-1405	5.6	Increase rear wheel traction
21007-1413	5.9	

Spark Plug:

Use the recommended racing spark plug.

Spark Plug	Part Number
R7376-8 (NGK)	92070-1275

NOTE:

- *Use a racing fuel with Research Octane Number (RON) 105 or higher, to help prevent abnormal combustion caused by the increased compression pressure from this modification.*

Combination Chart for Compression Ratio

	Cylinder Head	Head Gasket	Main Valve	Compression Ratio
Compression Ratio UP	0.1mm Cut from Gasket Surface	T=0.26 (11004-1240)	Main Valve Modification	9.2: 1

CAUTION

Use of leaded fuel is illegal in some countries, states or territories. Check local regulations before using leaded fuel.

Optional Carburetor Jet Needle and Throttle Valve Cutaway

The optional carburetor jets for the '02 KX250-L4 are listed on this page.

Warranty Information

This bulletin is racing support information only, not warranty authorization.

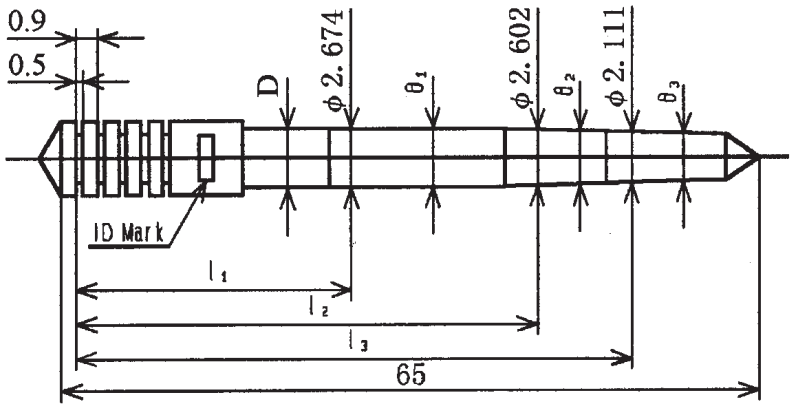
Carburetor Setting and Optional Parts

'02 KX250-L4

1) Base Setting

Markets	Carb Body Type	MJ	PWJ	JN	CA	SJ	AS	NJ			BPP	POP	BP	PO	ID Mark
								Height	Choke Height	Well Dia.					
All	PWK38S	#165	#48	NAFF -2	#8.0 (2.5X1.0)	#55	1 1/2	0mm	7.45 (With Sit)	•3.6	5.0	10.5	• 0.8	•0.7	G667A

2) JN Optional Parts



02FKX250 S

P/No.	ID Mark	D	l_1	l_2	l_3	$•_1$	$•_2$	$•_3$	A/F Condition
16187-1154	NALD	•2.685	27.15	30.95	46.95	0°45'58"	1°34'40"	3°0'0"	Richer
16187-1155	E	•2.695	27.15	30.95	46.95	0°45'58"	1°34'40"	3°0'0"	
16187-1156	F	•2.705	27.15	30.95	46.95	0°45'58"	1°34'40"	3°0'0"	STD (Clip position 3 rd)
16187-1157	G	•2.715	27.15	30.95	46.95	0°45'58"	1°34'40"	3°0'0"	
16187-1158	H	•2.725	27.15	30.95	46.95	0°45'58"	1°34'40"	3°0'0"	Leaner
16187-1159	NAFD	•2.685	27.60	31.40	47.40	0°45'58"	1°34'40"	3°0'0"	Richer
16187-1160	E	•2.695	27.60	31.40	47.40	0°45'58"	1°34'40"	3°0'0"	
16187-1161	F	•2.705	27.60	31.40	47.40	0°45'58"	1°34'40"	3°0'0"	STD (Clip position 2 rd)
16187-1162	G	•2.715	27.60	31.40	47.40	0°45'58"	1°34'40"	3°0'0"	
16187-1163	H	•2.725	27.60	31.40	47.40	0°45'58"	1°34'40"	3°0'0"	Leaner

NAL is richer than NAF (0.5 Clip Position).

3) CA Optional Parts

P/No.	Number	Remark
16025-1217	# 8(2.5×1.5)	STD
16025-1215	# 6(2.5×1.5)	OP
16025-1216	# 7(2.5×1.5)	OP

4) PWJ Optional Parts

P/No.	Number	Remark
16159-1059	# 42	OP
16159-1060	# 45	OP
16159-1058	# 48	STD
16159-1053	# 50	OP
16159-1055	# 52	OP

NOTES

AB is the Air Bleed: the size is of the hole in mm. The position is countered from the upper to the lower.

BPP is the Bypass Pitch: the distance in mm from the center of the main nozzle to the center of the Bypass hole.

POP is the Pilot Outlet Pitch: the distance in mm from the center of the main nozzle to the center of the Pilot Outlet.

BP is the Bypass: the size of the hole in mm.

PO is the Pilot Outlet: the size is in mm. The upper number is the size of the hole into the carburetor throat in mm. The lower number is the size of the hole into the fuel passage.