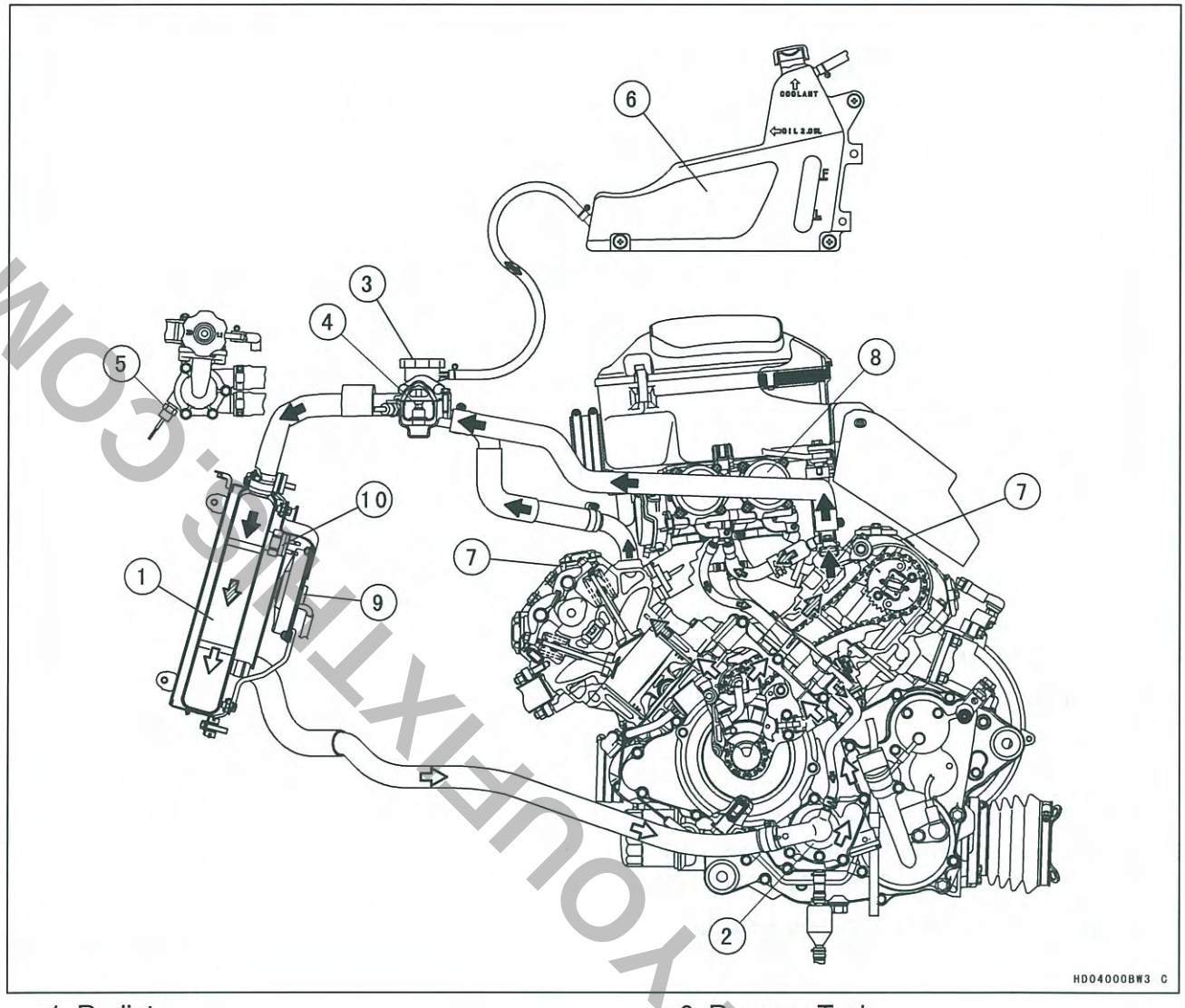
Coolant Flow Chart



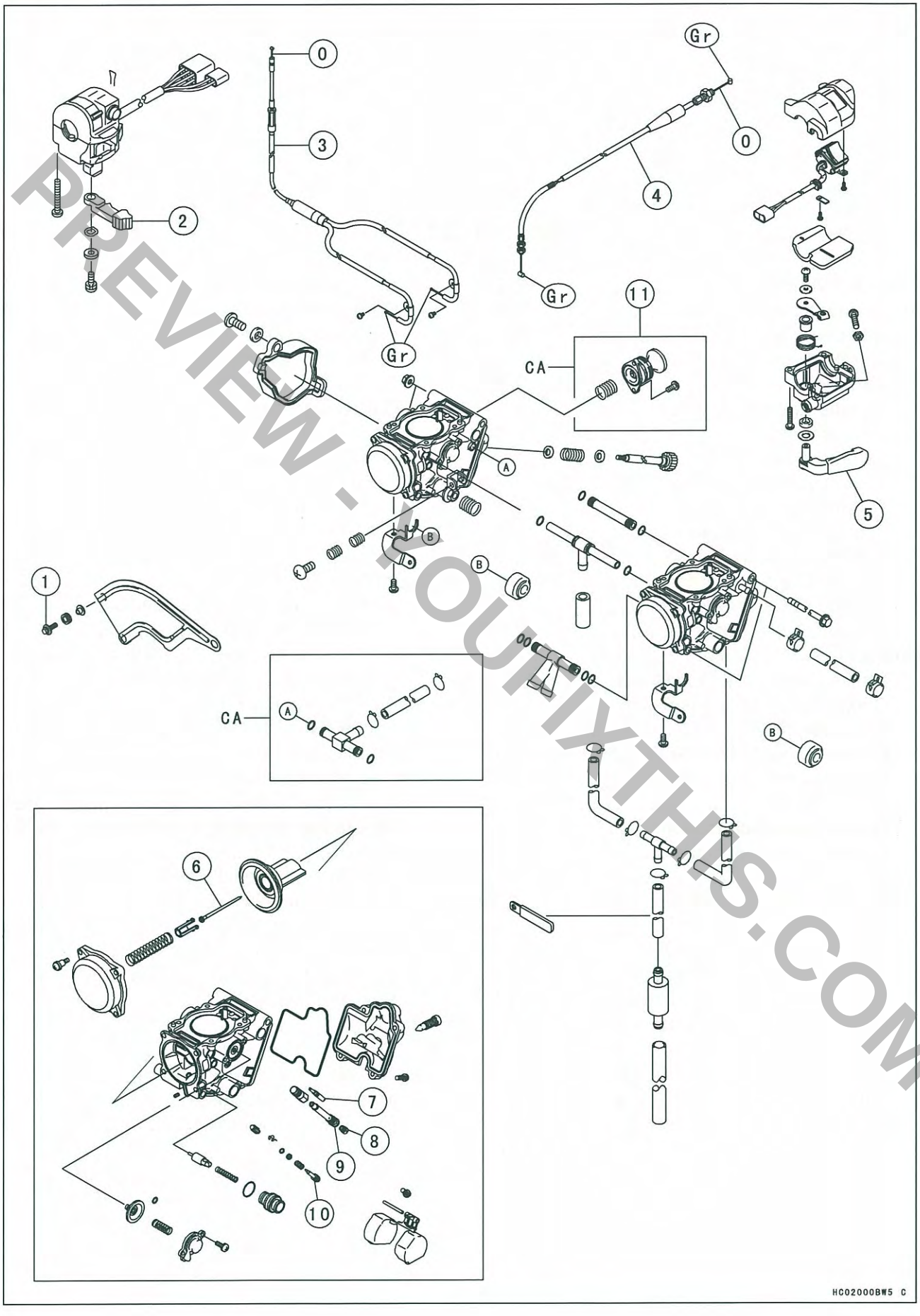
1. Radiator
2. Water Pump
3. Radiator Cap
4. Thermostat
5. Coolant Temperature Warning Light Switch
6. Reserve Tank
7. Cylinder, Cylinder Head
8. Carburetor
9. Radiator Fan
10. Radiator Fan Switch

Black Painted Arrow: Hot Coolant
White Painted Arrow: Cold Coolant

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Torque and Locking Agent

The following tables list the tightening torque for the major fasteners, and the parts requiring use of a non-permanent locking agent or liquid gasket.

Letters used in the "Remarks" column mean:
L: Apply a non-permanent locking agent.
LB: Apply a non-permanet locking agent (Three Bond TB2471, Blue).
MO: Apply molybdenum disulfide oil solution (mixture of the engine oil and molybdenum disulfide grease in a weight ratio 10:1).
SS: Apply silicone sealant (Kawasaki Bond: 56019-120).
Lh: Left-hand Threads
R: Replacement Parts
S: Follow the specific tightening sequence.
St: Stake the fasteners to prevent loosening.

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Fuel System:				
Heat guard plate mounting bolts	8.8	0.9	78 in·lb	
Air cleaner housing bolts (M5)	5.9	0.6	52 in·lb	L
Air cleaner housing bolts (M6) 28.7 mm (1.13 in.)	8.8	0.9	78 in·lb	
Air cleaner housing bolts (M6) 33 mm (1.30 in.)	8.8	0.9	78 in·lb	
Fuel tap plate screws	0.8	0.08	7 in·lb	
Air cleaner element bracket screws (A2, B2)	4.9	0.5	43 in·lb	
Cooling System:				
Radiator fan switch	18	1.8	13	
Water pump cover bolts	8.8	0.9	78 in·lb	
Coolant drain plug	8.8	0.9	78 in·lb	
Water pump fitting bolt	9.8	1.0	87 in·lb	
Water pump impeller	7.9	0.8	69 in·lb	
Thermosta housing cover bolts	8.8	0.9	78 in·lb	
Coolant temperature warning light switch	7.9	0.8	69 in·lb	SS
Radiator fan mounting nut	2.7	0.28	24 in·lb	L
Radiator fan assembly bolts	8.8	0.9	78 in·lb	
Engine Top End:				
Water pipe bolts	9.8	1.0	87 in·lb	
Rocker case bolts 55 mm (2.2 in.)	8.8	0.9	78 in·lb	S
Rocker case bolts 130 mm (5.1 in.)	9.8	1.0	87 in·lb	S
Rocker case bolts 30 mm (1.2 in.)	9.8	1.0	87 in·lb	
Rocker case bolts 25 mm (1.0 in.)	9.8	1.0	87 in·lb	
Cylinder head bolts (M10), first torque	25	2.5	18	S, MO
Cylinder head bolt (M10), final torque	49	5.0	36	S
Cylinder head bolts (M6)	9.8	1.0	87 in·lb	
Cylinder head jacket plugs	20	2.0	14	L
Valve adjusting cap bolts	8.8	0.9	78 in·lb	
Valve adjusting screw locknuts	12	1.2	104 in·lb	
Rocker shaft bolts	8.8	0.9	78 in·lb	
Chain tensioner mounting bolts	8.8	0.9	78 in·lb	
Chain tensioner cap bolt	22	2.2	16	

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General Specifications

Items		KVF650-A1, B1	KVF650-A2, B2
Dimensions:			
Overall length		2 155 mm (84.84 in.)	←
Overall width		1 170 mm (46.06 in.)	←
Overall height		1 150 mm (45.28 in.)	←
Wheelbase		1 295 mm (50.98 in.)	←
Ground clearance:			
Rear final gear case		193 mm (7.60 in.)	←
Center of frame		240 mm (9.45 in.)	←
Seat height		855 mm (33.66 in.)	←
Dry mass		274 kg (604 lb)	←
Curb mass:	Front	155 kg (342 lb)	←
	Rear	138 kg (304 lb)	←
Fuel tank capacity		17 L (4.5 US gal)	←
Performance:			
Minimum turning radius		3.1 m (10.17 ft)	←
Engine:			←
Type		4-stroke, SOHC, V2-cylinders	
Cooling system		Liquid-cooled	←
Bore and stroke		80.0 × 63.0 mm (3.15 × 2.48 in.)	←
Displacement		633 mL (38.6 cu in.)	←
Compression ratio		9.9:1	←
Maximum horsepower		30.9 kW (42 PS) @6 500 r/min (rpm), (US) -	←
Maximum torque		52.1 N·m (5.3 kgf·m, 38.33 ft·lb) @4 000 r/min (rpm)	←
Carburetion system		Carburetor, Keihin CVKR-D32	←
Starting system		Electric Starter & Recoil Starter	←
Ignition system		Digital DC-CDI	←
Timing advance		Electronically advanced	←
Ignition timing		From 5° BTDC @1 100 r/min (rpm) to 28° BTDC @5 000 r/min (rpm)	←
Spark plug		NGK CR7E, DENSO U22ESR-N	←
Cylinder numbering method		Front to rear, 1-2	←
Firing order		1-2	←
Valve timing:			
Inlet	Open	30° BTDC	←
	Close	34° ABDC	←
	Duration	244°	←
Exhaust:	Open	54° BBDC	←
	Close	10° ATDC	←
	Duration	244°	←
Lubrication system		Forced lubrication (wet sump)	←
Engine oil:	Grade	API SF or SG class	←
		API SH or SJ with JASO MA class	←
	Viscosity	SAE10W-40	←
	Capacity	2.05 L (2.17 US qt)	←

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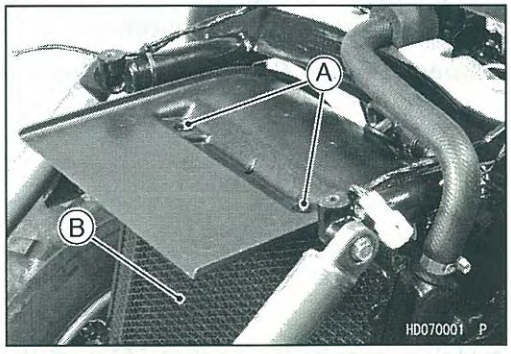
Radiator

Radiator Removal

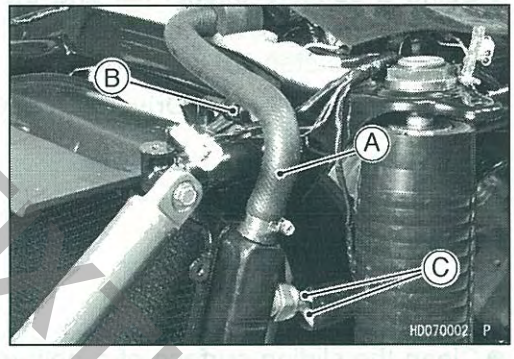
⚠ WARNING

The radiator fan is connected directly to the battery. The radiator fan may start even if the ignition switch is off. NEVER TOUCH THE RADIATOR FAN UNTIL THE RADIATOR FAN CONNECTOR IS DISCONNECTED. TOUCHING THE FAN BEFORE THE CONNECTOR IS DISCONNECTED COULD CAUSE INJURY FROM THE FAN BLADES.

- Drain the coolant (see Coolant Draining).
- Remove:
  Front Guard (see Frame chapter)
  Right and Left Front Side Covers (see Frame chapter)
  Screws [A]
  Screen [B]



- Remove:
  Radiator Hose [A]
  Radiator Fan Wire Connector [B]
  Radiator Fan Switch Connectors [C]



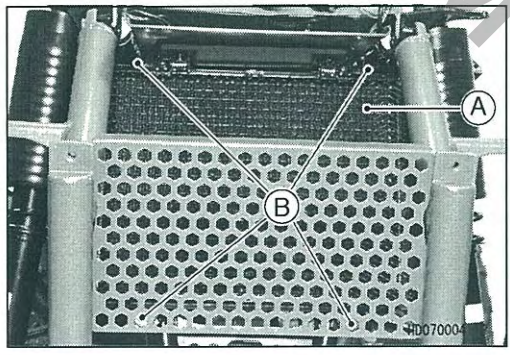
- Remove:
  Radiator Hose [A]



- Remove the radiator [A] by taking off four mounting bolts [B].

CAUTION

Do not touch the radiator core. This could damage the radiator fins, resulting in loss of cooling efficiency.



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Periodic Maintenance Chart

The scheduled maintenance must be done in accordance with this chart to keep the vehicle in good running condition. **The initial maintenance is vitally important and must not be neglected.**

KVF650–A1, B1

FREQUENCY / OPERATION	First Service	Regular Service			
	After 10 hrs. or 100 km (60 mi.) of use	Every 10 days or 200 km (120 mi.) of use	Every 30 days or 600 km (360 mi.) of use	Every 90 days or 1700 km (1100 mi.) of use	Every year of use
ENGINE					
Converter drive belt wear – check *				●	
Converter drive belt deflection - check *				●	
Drive belt failure detection system function – check*				●	
Engine brake control (K-EBC) lever – check*				●	
Air cleaner – service*	●	●			
Throttle lever play – check*	●	●			
Valve clearance – check*					●
Fuel system cleanliness – check*	●			●	
Engine oil – change *	●			●	
Oil filter – replace*	●			●	
Spark plug – clean and gap	●			●	
Spark arrester – clean					●
Radiator – clean*	●	●			
Radiator hoses, and connections – check*					●
Coolant – change*	2 years				
Coolant filter of carburetor – clean					●
Fuel hoses, connections – check				●	
Fuel hose – replace	4 years				
CHASSIS					
Joint boots – check*	●	●			
Rear brake pedal and lever adjustment – check*	●	●			
Rear brake plates – change*	every 10 000 km (6 000 mi.)				
Cable adjustment*	●	●			
Bolts and nuts – tighten	●	●			
Front brake pad wear – check*	●		●		
Brake light switch – check*	●		●		
Steering – check	●			●	
Differential control lever play– check	●	●			
Tire wear – check*			●		
Front and rear finial gear case oil – change	●				●

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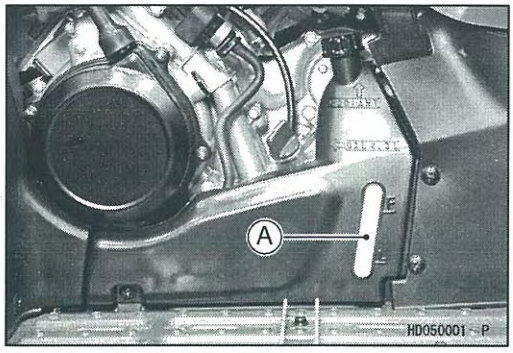
Coolant

Coolant Deterioration Inspection

- Visually inspect the coolant in the reserve tank [A].

★If whitish cotton-like wafts are observed, aluminum parts in the cooling system are corroded. If the coolant is brown, iron or steel parts are rusting. In either case, flush the cooling system.

★If the coolant gives off an abnormal smell, check for cooling system leak. It may be caused by exhaust gas leaking into the cooling system.

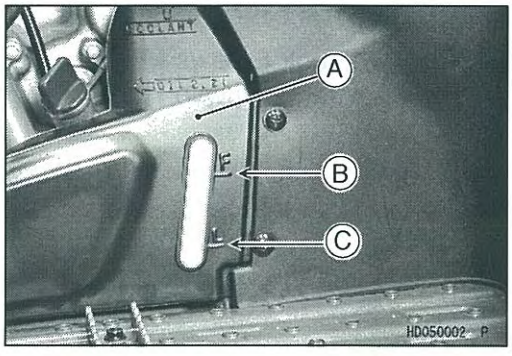


Coolant Level Inspection

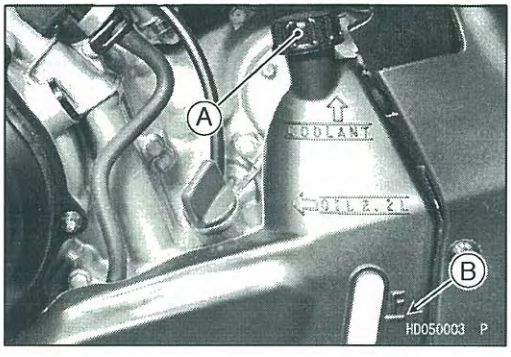
NOTE

○*Check the level when the engine is cold (room or ambient temperature).*

- Check the coolant level in the reserve tank with the vehicle held perpendicularly.
  Reserve Tank [A]
  F (full) Mark [B]
  L (low) Mark [C]



★If the coolant level is lower than the L mark, Remove the reserve tank cap [A], then add coolant to the F mark [B].



CAUTION

For refilling, add the specified mixture of coolant and soft water. Adding water alone dilutes the coolant and degrades its anticorrosion properties. The diluted coolant can attach the aluminum engine parts. In an emergency, soft water can be added. But the diluted coolant must be returned to the correct mixture ration within a few days.
If coolant must be added often, or the reserve tank has run completely dry; there is probably leakage in the cooling system. Check the system for leaks.

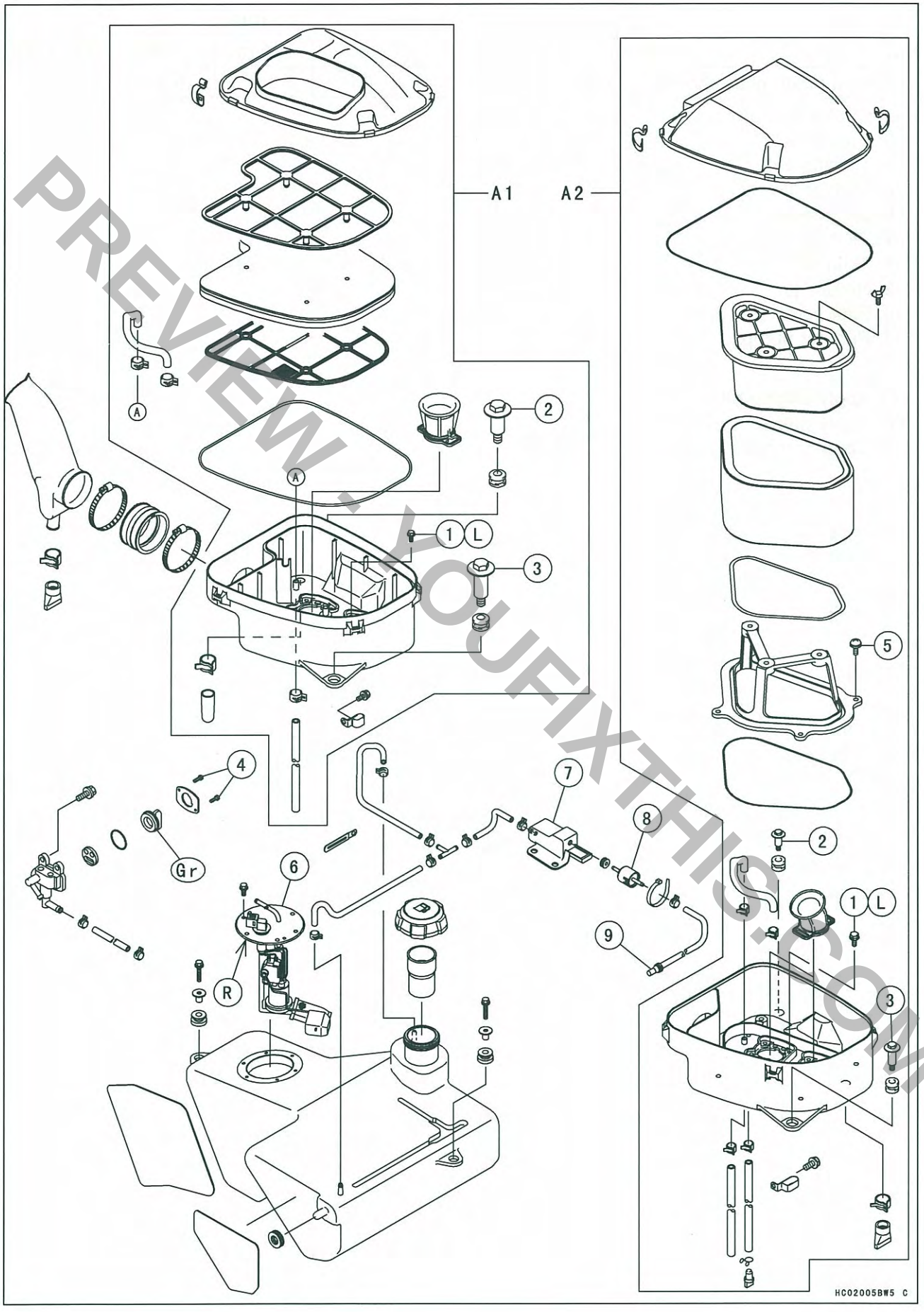
Coolant Draining

⚠ WARNING

To avoid burns, do not remove the radiator cap or try to change the coolant when the engine is still hot. Wait until it cools down.
Coolant on tires will make them slippery and can cause an accident and injury. Immediately wash away any coolant that spills on the frame, engine, or wheels.
Since coolant is harmful to the human body, do not use for drinking.

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Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Intermediate shaft sprocket nut	44	4.5	33	
Intermediate shaft chain guide bolts	8.8	0.9	78 in·lb	
Intermediate shaft chain tensioner bolts	8.8	0.9	78 in·lb	
Camshaft sprocket bolts	12	1.2	104 in·lb	L
Position plate bolts	8.8	0.9	78 in·lb	
Cylinder bolts 40 mm (1.6 in.)	9.8	1.0	87 in·lb	
Cylinder bolts 30 mm (1.2 in.)	9.8	1.0	87 in·lb	
Front cylinder camshaft chain guide bolt	20	2.0	14	
Rear cylinder camshaft chain guide bolt	20	2.0	14	
Exhaust pipe cover bolts	8.8	0.9	78 in·lb	
Muffler cover bolts	8.8	0.9	78 in·lb	
Muffler mounting bolts	20	2.0	14	
Heat guard plate mounting bolts	8.8	0.9	78 in·lb	
Converter System:				
Drive pulley bolt	93	9.5	69	R, Lh
Driven pulley nut	93	9.5	69	
Drive pulley cover bolts	13	1.3	113 in·lb	
Ramp weight nuts	6.9	0.7	61 in·lb	
Spider	275	28	205	Lh
Converter cover bolts	8.8	0.9	78 in·lb	S
Joint duct bolts	8.8	0.9	78 in·lb	
Engine brake actuator mounting bolts	8.8	0.9	78 in·lb	
Recoil Starter:				
Recoil starter mounting bolts	5.9	0.6	104 in·lb	L
Recoil starter flange nut	8.3	0.85	74 in·lb	
Engine Lubrication System:				
Oil filter	18	1.8	13 in·lb	R
Oil pressure switch	15	1.5	11	SS
Oil pipe bolts	8.8	0.9	78 in·lb	
Engine drain plug	20	2.0	14	
Oil pressure relief valve	15	1.5	11	L
Oil pump bolts	8.8	0.9	78 in·lb	
Chain guide bolts	8.8	0.9	78 in·lb	
Oil pump drive chain tensioner bolt	25	2.5	18	
Oil filter mounting bolts	25	2.5	18	L
Oil pressure switch terminal bolt	1.5	0.15	13 in·lb	
Engine Removal/Installation:				
Engine mounting bracket bolts	23	2.3	17	
Engine mounting bolt	59	6.0	43	
Engine mounting nut	59	6.0	43	
Crankshaft/Transmission:				
Connecting rod big end cap nuts	34	3.5	25	MO
Engine drain plug	20	2.0	14	

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General Specifications

Items			KVF650-A1, B1	KVF650-A2, B2
Drive Train:				
Primary reduction system:				
Type			Belt converter	←
Reduction ratio			3.122 ~ 0.635	←
Transmission:				
Type			2-speed plus reverse	←
Gear ratios:				
	Forward:	High	3.098 (30/26 × 29/18 × 20/12)	←
		Low	4.833 (36/20 × 29/18 × 20/12)	←
	Reverse:		4.028 (16/12 × 18/16 × 29/18 × 20/12)	←
Final drive system:				
	Type		Shaft, 2WD/4WD	←
	Reduction ratio		4.375 (35/8)	←
Overall drive ratio				
	Forward:	High	42.32 ~ 8.61	←
		Low	66.02 ~ 13.43	←
	Reverse:		55.01 ~ 11.19	←
Front final gear case oil:				
		Grade	API SF or SG class	←
			API SH or SJ with JASO MA class	←
		Viscosity	SAE10W-40	←
		Capacity	0.43 L (0.45 US qt)	←
Rear final gear case oil:				
		Type	MOBIL Fluid 424	MOBIL Fluid 424 orCITGO TRANSGARD TRACTOR HYDRAULIC FLUID
		Capacity	0.9 L (0.95 US qt)	←
Frame:				
Type			Double tubular	←
Caster (rake angle)			3.5°	←
Camber			0° @1 G	←
King pin angle			15.5°	←
Trail			15 mm (0.59 in.)	←
Tread		Front	914 mm (35.98 in.)	←
		Rear	910 mm (35.83 in.)	←
Front tire:		Type	Tubeless	←
		Size	AT25 × 8 – 12	←
Rear tire:		Type	Tubeless	←
		Size	AT25 × 10 – 12	←
Suspension:	Front	Type	MacPherson strut	←
		Wheel travel	170 mm (6.69 in.)	←
	Rear	Type	Swingarm	←
		Wheel travel	184 mm (7.24 in.)	←

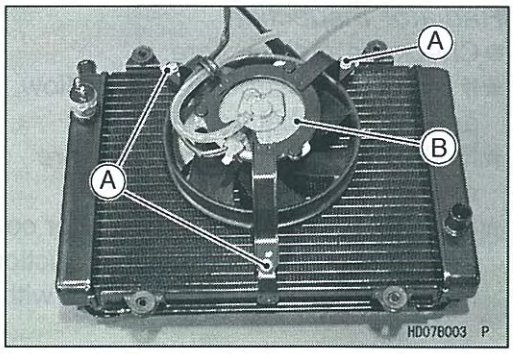
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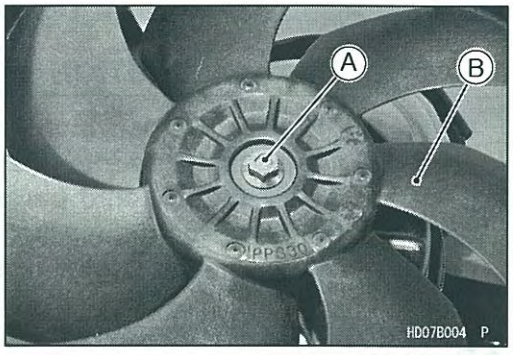
Radiator

Radiator Fan Removal

● Remove:
Radiator (see Radiator Removal)
Radiator Fan Assembly Bolts [A]
Fan Assembly [B]

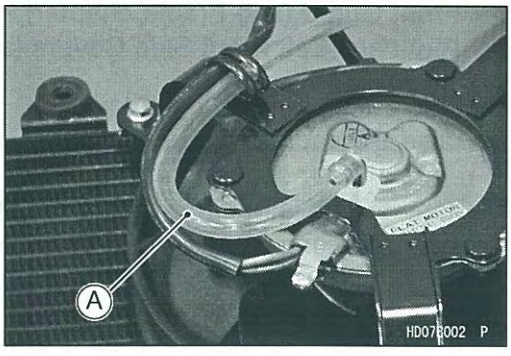


● Remove:
Radiator Fan Mounting Nut [A]
Radiator Fan [B]



NOTE

○ *When removing and installing the fun motor tube [A], do not crush the tube.*



Radiator Fan Installation

● Install:
Radiator Fan
● Apply a non-permanent locking agent to the threads and tighten the mounting nut.

Torque - Radiator Fan Mounting Nut: 2.7 N·m (0.28 kgf·m, 24 in·lb)

● Install:
Radiator Fan Assembly
● Tighten:

Torque - Radiator Fan Assembly Bolts: 8.8 N·m (0.9 kgf·m, 78 in·lb)

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Periodic Maintenance Chart

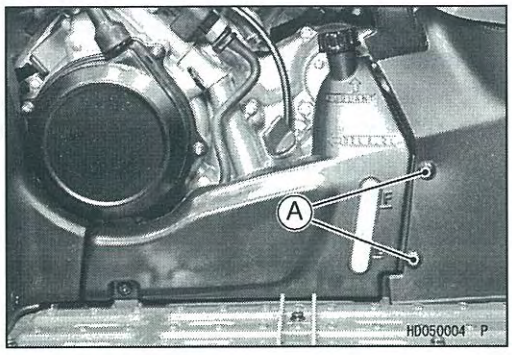
OPERATION / FREQUENCY	First Service	Regular Service			
	After 10 hrs. or 100 km (60 mi.) of use	Every 10 days or 200 km (120 mi.) of use	Every 30 days or 600 km (360 mi.) of use	Every 90 days or 1700 km (1100 mi.) of use	Every year of use
General lubrication*			●		
Front brake fluid level – check	●		●		
Front brake fluid – change					●
Brake master cylinder piston assembly and dust seal – replace	2 years				
Caliper piston seal and dust seal – replace	2 years				
Brake hoses, connections– check				●	
Brake hose – replace	4 years				

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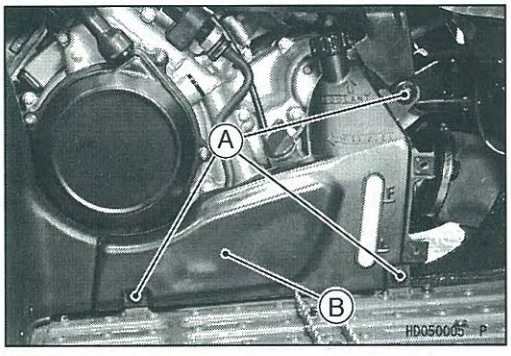
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Coolant

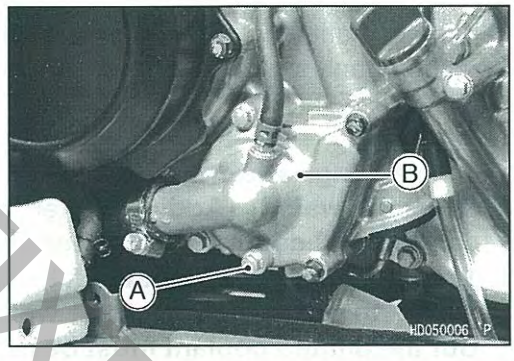
- Remove:
  Rear Fender Flap Screws [A]



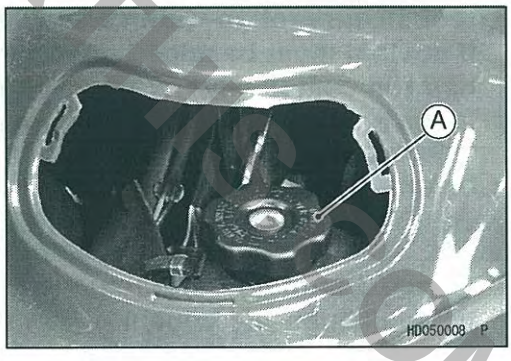
- Remove:
  Reserve Tank Screws [A]
  Reserve Tank [B] with Hose



- Place a container under the drain plug [A] at the bottom of the water pump [B], then remove the drain plug.



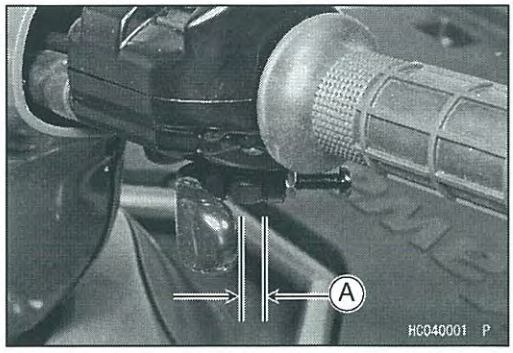
- Remove the radiator cap [A] in two steps. First turn the cap counterclockwise to the first step. Then push and turn it further in the same direction and remove the cap.
- The coolant will drain from the radiator and engine.
- Remove the reserve tank cap, and pour the coolant into a container.



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Throttle Lever and Cable

Throttle Lever Free Play Inspection



- Check that the throttle lever moves smoothly from full open to close, and the throttle closes quickly and completely in all steering positions by the return spring.

★If the throttle lever does not return properly, check the throttle cable routing, lever free play, and for possible cable damage. Then lubricate the throttle cable.

- Run the engine at the idle speed, and turn the handlebar all the way to the right and left to ensure that the idle speed does not change.

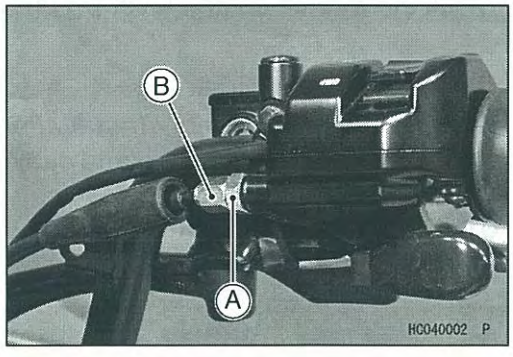
★If the idle speed increases, check the throttle cable free play and the cable routing.

- Stop the engine and check the throttle lever free play [A].

★If the free play is not within the specified range, adjust the cable.

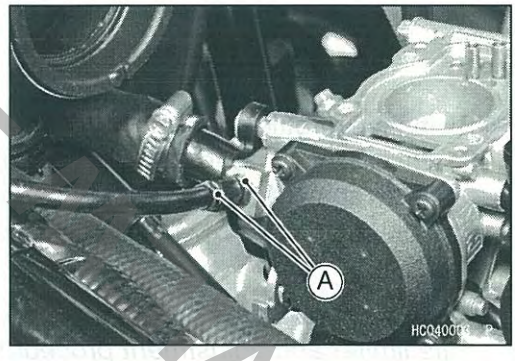
Throttle Lever Free Play
Standard: 2 ~ 3 mm (0.08 ~ 0.12 in.)

Throttle Lever Free Play Adjustment

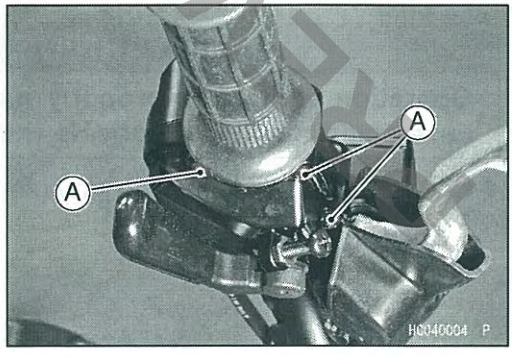


- Remove the handle cover (see Multifunction Meter Unit Removal in Electrical System chapter).
- Slide the rubber cover off the adjuster at the throttle case.
- Loosen the locknut [A] and turn the throttle cable upper adjuster [B] until the cable has proper amount of play.
- Tighten the locknut and reinstall the rubber cover.

★If the free play cannot be adjusted by using the upper cable adjuster, remove the air cleaner housing and then use the cable adjusting nuts [A] at the lower end of the throttle cable and make the necessary free play.



Throttle Case Removal/Disassembly



- Remove the throttle case screws [A] and pull the case open.
- Slide the cable adjuster dust cover out of place.

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Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Crankcase bolts (M8) 75 mm (2.95 in.)	20	2.0	14	S
Crankcase bolts (M8) 110 mm (4.33 in.)	20	2.0	14	S, L(1)
Crankcase bolts (M6) 40 mm (1.57 in.)	9.8	1.0	78 in·lb	
Crankcase bolts (M6) 65 mm (2.56 in.)	9.8	1.0	78 in·lb	
Grip hold nut	9.8	1.0	87 in·lb	
Shift lever assembly bracket bolts	20	2.0	14	
Tie-rod end front locknut	9.8	1.0	87 in·lb	Lh
Tie-rod end rear locknut	9.8	1.0	87 in·lb	
Tie-rod end nut	20	2.0	14	
Shift lever assembly nut	20	2.0	14	
Tie-rod end bolt	9.8	1.0	87 in·lb	
Shift shaft positioning bolt	25	2.5	18	
Shift shaft spring bolt	25	2.5	18	L
Shift shaft cover bolts	8.8	0.9	78 in·lb	
Tie-rod end locknut	20	2.0	14	
Neutral position switch	15	1.5	11	
Reverse position switch	15	1.5	11	
Wheel/Tires				
Tie-rod adjusting sleeve locknuts	27	2.8	20	
Tie-rod end nuts	42	4.3	31	
Wheel nuts	78	8.0	58	
Front axle nuts	197	20	145	
Rear axle nuts	265	27	195	
Final Drive:				
(Output Bevel Gears)				
Output driven bevel gear housing bolts	26	2.7	20	
Output drive bevel gear housing bolts	26	2.7	20	
Bearing holder	137	14	101	L
Bevel gear holder nut	157	16	116	L
Bearing holder	118	12	87	L
Output shaft holder nut	157	16	116	L
Rotor mounting bolts	12	1.2	104 in·lb	
Output drive bevel gear cover bolts	8.8	0.9	78 in·lb	
(Front Final Gear Case)				
Variable front differential control shift shaft lever bolt	8.8	0.9	78 in·lb	
Front final gear case left cover bolts (M8)	9.8	1.0	87 in·lb	
Ring gear bolts	57	5.8	42	LB
Front final gear case center cover bolts (M6)	9.8	1.0	87 in·lb	L
Oil filler cap	29	3.0	22	
Front final gear case center cover bolts (M8)	24	2.4	17	L
Pinion gear bearing holder nut	127	13	94	St
Pinion gear bearing holder	137	14	101	L

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General Specifications

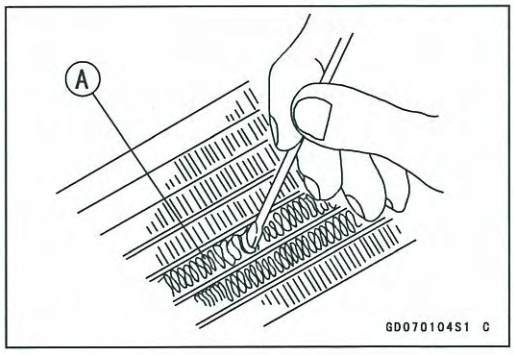
Items			KVF650-A1, B1	KVF650-A2, B2
Brake:	Front		Disc (Hydraulic) × 2	←
	Rear		Enclosed Wet Multi-Plate	←
Electrical Equipment:				
Battery			12 V 12 Ah	←
Headlight:		Type	Semi-sealed beam	←
		Bulb	12 V 45/45 W × 2	←
Tail/brake light		Bulb	12 V 8/27 W	12 V 5/21 W
Alternator:		Type	Three - phase AC	←
		Rated output	25 A, 14 V @6 000 r/min (rpm)	←

Specifications are subject to change without notice, and may not apply to every country.
US: U.S.A. Model

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Radiator

Radiator Inspection



- Check the radiator core.

★If there are obstructions to air flow, remove the radiator and remove obstructions.

★If the corrugated fins [A] are deformed, carefully straighten them.

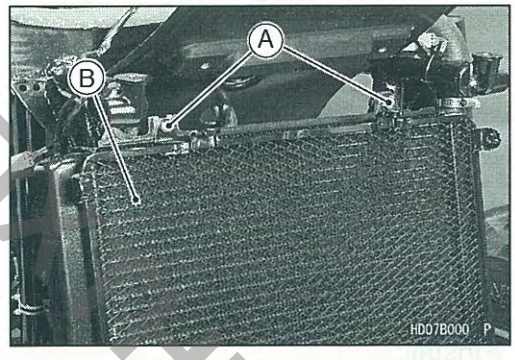
★If the air passages of the radiator core are blocked more than 20% by unremovable obstructions or irreparably deformed fins, replace the radiator with a new one.

Radiator Cleaning

CAUTION

Clean the radiator screen and the radiator in accordance with the Periodic Maintenance Chart. In dusty areas, they should be cleaned more frequently than the recommended interval. After riding through muddy terrains, the radiator screen and the radiator should be cleaned immediately.

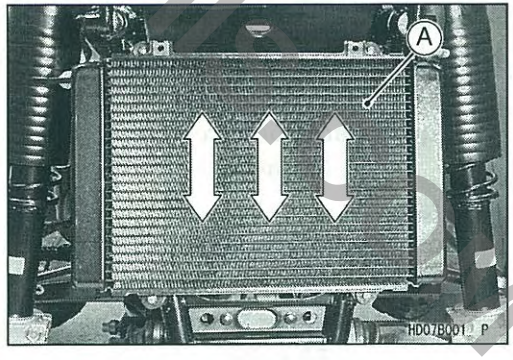
- Remove:
  Front Guard (see Frame chapter)
  Right and Left Front Side Covers (see Frame chapter)
- Unscrew four mounting screws [A].
- Raise the radiator screen [B] to clear the stoppers and remove the radiator screen.
- Clean the radiator screen in a bath of tap water, and then dry it with compressed air or by shaking it.



- Clean the radiator.

CAUTION

When cleaning the radiator with steam cleaner, be careful of the following to prevent radiator damage.
Keep the steam gun away more than 0.5 m (20 in.) from the radiator core [A].
Hold the steam gun perpendicular to the core surface.
Run the steam gun following the core fin direction.



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Periodic Maintenance Chart

KVF650–A2, B2

FREQUENCY / OPERATION	First Service	Regular Service			
	After 10 hrs. or 100 km (60 mi.) of use	Every 10 days or 200 km (120 mi.) of use	Every 30 days or 600 km (360 mi.) of use	Every 90 days of vehicle use, 1700 km (1100 mi.) or when belt indicator light comes on (100 hours) whichever comes first	Every year of use
ENGINE					
Converter drive belt wear – check *				●	
Converter drive belt deflection - check *				●	
Drive belt failure detection system function – check*				● (Note)	
Engine brake control (K-EBC) lever – check*				●	
Air cleaner – service*	●	●			
Throttle lever play – check*	●	●			
Valve clearance – check*					●
Fuel system cleanliness – check*	●			●	
Engine oil – change *	●			●	
Oil filter – replace*	●			●	
Spark plug – clean and gap	●			●	
Spark arrester – clean					●
Radiator – clean*	●	●			
Radiator hoses, and connections – check*					●
Coolant – change*	2 years				
Coolant filter of carburetor – clean					●
Fuel hoses, connections – check				●	
Fuel hose – replace	4 years				
CHASSIS					
Joint boots – check*	●	●			
Rear brake pedal and lever adjustment – check*	●	●			
Rear brake plates – change*	every 10 000 km (6 000 mi.)				
Cable adjustment*	●	●			
Bolts and nuts – tighten	●	●			
Front brake pad wear – check*	●		●		
Brake light switch – check*	●		●		
Steering – check	●			●	
Differential control lever play– check	●	●			

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Quick Reference Guide

General Information	1
Fuel System	2
Cooling System	3
Engine Top End	4
Converter System	5
Recoil Starter	6
Engine Lubrication System	7
Engine Removal/Installation	8
Crankshaft/Transmission	9
Wheels/Tires	10
Final Drive	11
Brakes	12
Suspension	13
Steering	14
Frame	15
Electrical System	16
Appendix	17

This quick reference guide will assist you in locating a desired topic or procedure.

- Bend the pages back to match the black tab of the desired chapter number with the black tab on the edge at each table of contents page.
- Refer to the sectional table of contents for the exact pages to locate the specific topic required.

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LIST OF ABBREVIATIONS

A	ampere(s)	lb	pounds(s)
ABDC	after bottom dead center	m	meter(s)
AC	alternating current	min	minute(s)
ATDC	after top dead center	N	newton(s)
BBDC	before bottom dead center	Pa	pascal(s)
BDC	bottom dead center	PS	horsepower
BTDC	before top dead center	psi	pound(s) per square inch
°C	degree(s) Celcius	r	revolution
DC	direct current	rpm	revolution(s) per minute
F	farad(s)	TDC	top dead center
°F	degree(s) Fahrenheit	TIR	total indicator reading
ft	foot, feet	V	volt(s)
g	gram(s)	W	watt(s)
h	hour(s)	Ω	ohm(s)
L	liter(s)		

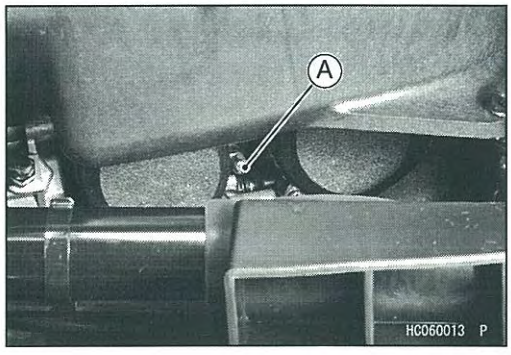
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Read OWNER'S MANUAL before operating.

Carburetor

Carburetor Synchronization Adjustment



- Turn the adjust screw [A] to synchronize the carburetors.

★If the carburetor synchronization cannot be obtained by using the adjusting screw, check for dirt or blockage, and then check the pilot screw settings.

Special Tool - Pilot Screw Adjuster, A: 57001–1239

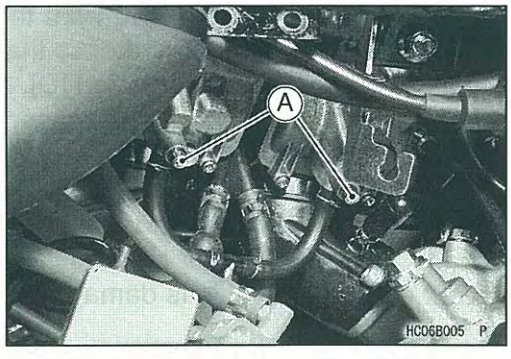
- Check the carburetor synchronization again.

NOTE

○*Do not turn the pilot screws carelessly during carburetor synchronization. You may cause poor running at low engine speed.*

- Check idle speed.

Fuel System Cleanliness Inspection



⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch to OFF. Do not smoke. Make sure the area is well-ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

- Place a suitable container under the drain plugs [A].
- Remove the carburetor drain plug and check to see if water or dirt comes out.

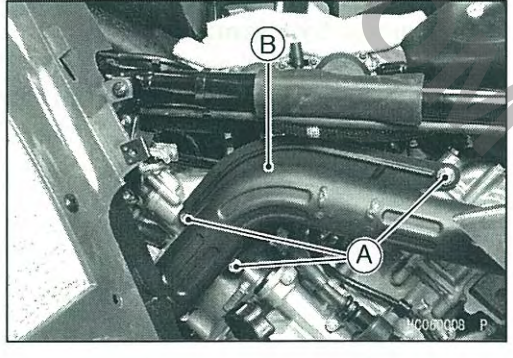
★If any water or dirt appears during the above inspection, clean the carburetors and the fuel tank.

Carburetor Removal

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. Turn the ignition switch OFF. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

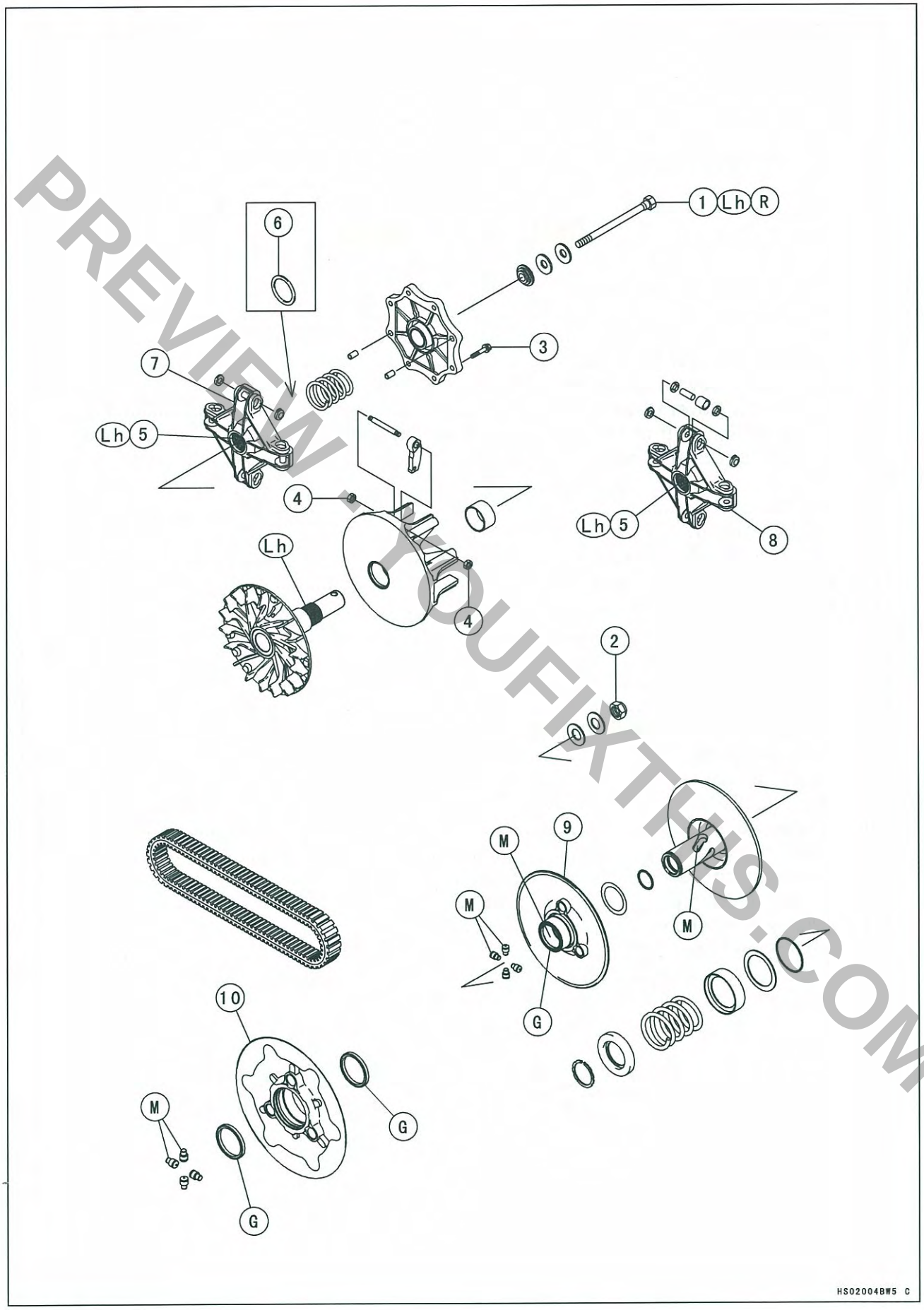
- Drain the coolant (see Cooling System chapter).



- Remove:
  Air Cleaner Housing (see Air Cleaner Housing Removal)
  Side Cover (see Frame chapter)
  Bolts [A] and Heat Guard Plate [B]
  Throttle Cable Lower End
  Fuel Hose
  Coolant Hoses

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Exploded View



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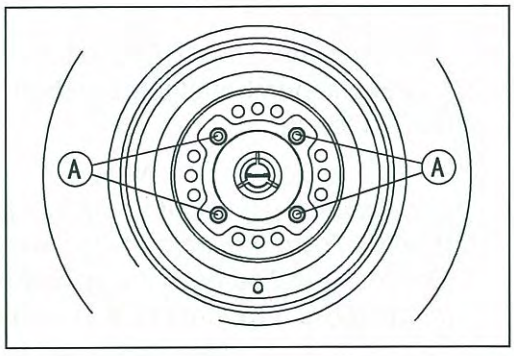
Wheels (Rims)

Wheel Removal

- Loosen the wheel nuts [A].
- Support the vehicle on a stand or a jack so that the wheels are off the ground.

Special Tool - Jack: 57001-1238

- Remove:
  Wheel Nuts
  Wheel

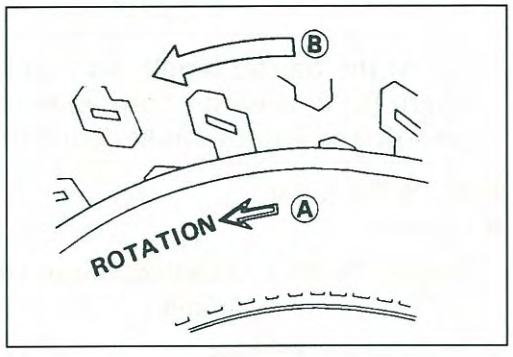


Wheel Installation

- Check the tire rotation mark [A] on the tire, and install the wheel accordingly.

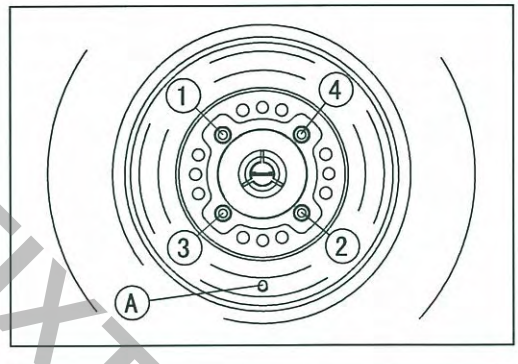
NOTE

○*The direction of the tire rotation [B] is shown by an arrow on the tire sidewall.*



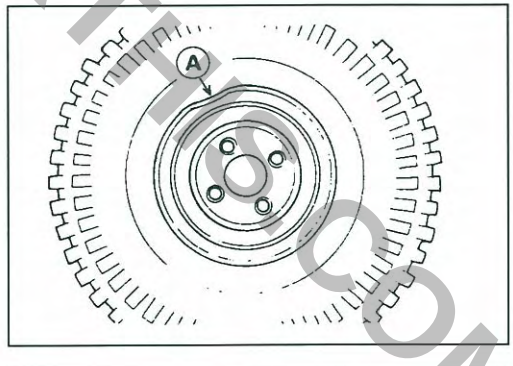
- Position the wheel so that the air valve [A] is toward the outside of the vehicle.
- Tighten the wheel nuts in a criss-cross pattern.

Torque - Wheel Nuts: 78 N·m (8.0 kgf·m, 58 ft·lb)

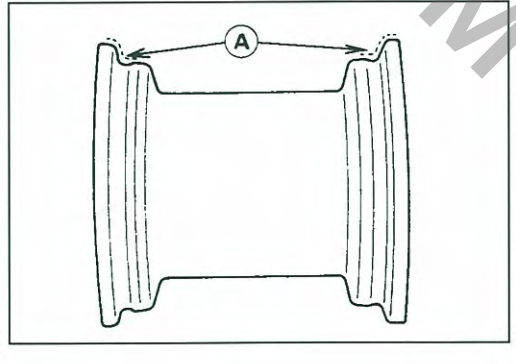


Wheel (Rim) Inspection

- Examine both sides of the rim for dents [A]. If the rim is dented, replace it.



★If the tire is removed, inspect the air sealing surfaces [A] of the rim for scratches or nicks. Smooth the sealing surfaces with fine emery cloth if necessary.



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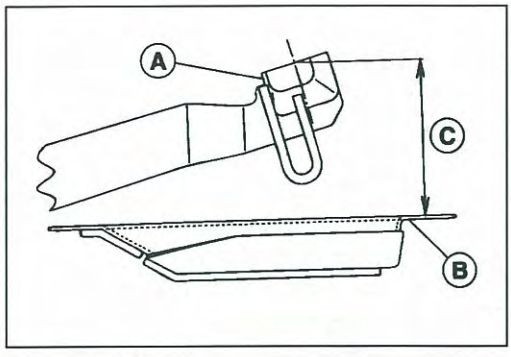
Rear Brake Lever, Pedal and Cables

Brake Pedal Position Inspection

● Check that the brake pedal [A] is in the correct position as shown.
[B] Footboard

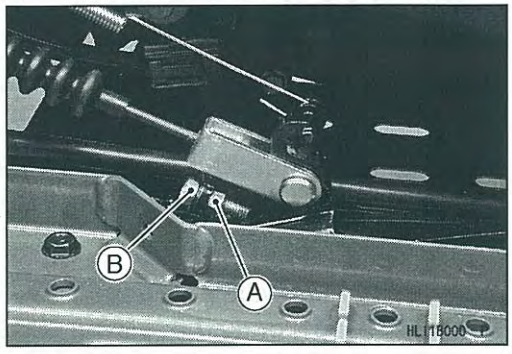
Pedal Position [C]
Standard: 55 ~ 60 mm (2.2 ~ 2.4 in.) above footboard

★If it is incorrect, adjust the brake pedal position.



Brake Pedal Position Adjustment

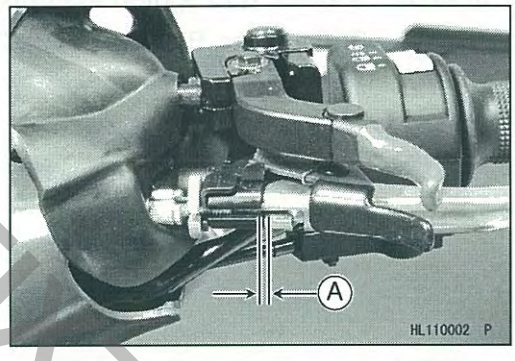
● Loosen the locknut [A], and turn the adjusting bolt [B] until the brake pedal is correctly positioned.
● Tighten the locknut.
● Check the brake pedal free play (see Brake Pedal Free Play Inspection).



Rear Brake Lever Free Play Inspection

● Check the rear brake lever free play [A].
○Pull the rear brake lever lightly until the brake is applied.
★If the play is incorrect, adjust it.

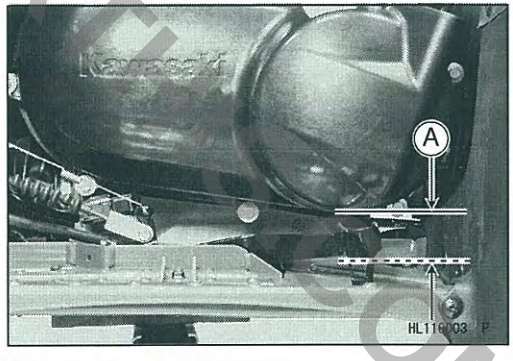
Rear Brake Lever Free Play
Standard: 1 ~ 2 mm (0.04 ~ 0.08 in.)



Brake Pedal Free Play Inspection

● Check the brake pedal free play [A].
○Depress the brake pedal lightly by hand until the brake is applied.
★If the free play is incorrect, adjust it.

Pedal Free Play
Standard: 15 ~ 25 mm (0.6 ~ 1.0 in.)



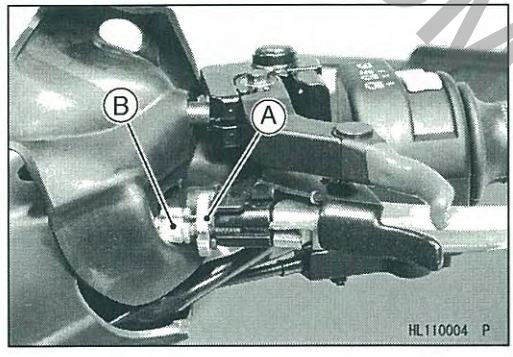
Rear Brake Lever and Pedal Free Play Adjustment

NOTE

○*Since the rear brake lever and pedal free play adjustments affect each other, make them at the same time.*

Rear Brake Lever:

● Loosen the knurled locknut [A] and turn the adjuster [B] at the rear brake lever in as far as it will go.
● Tighten the locknut.



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Ignition System

⚠ WARNING

The ignition system produces extremely high voltage.
Do not touch the spark plug, ignition coil, or spark plug lead while the engine is running, or you could receive a severe electrical shock.

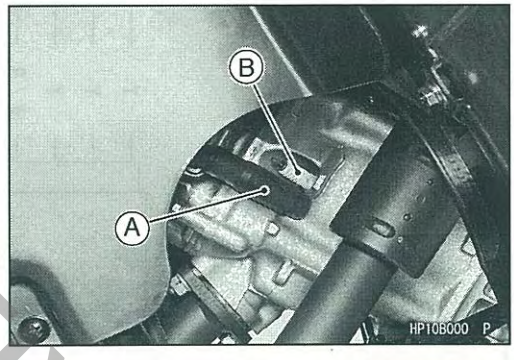
CAUTION

Do not disconnect the battery leads or any other electrical connections when the ignition switch is on, or while the engine is running. This is to prevent igniter damage.
Do not install the battery backwards. The negative side is grounded. This is to prevent damage to the diodes and igniter.
Use the standard regulator/rectifier, or the igniter will be damaged.

Spark Plug Removal

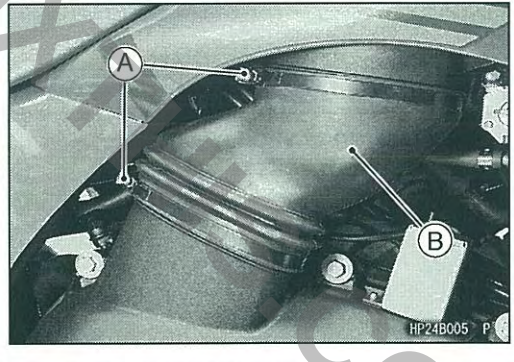
Front Side:

- Remove:
  Spark Plug Cap [A]
  Spark Plug [B]

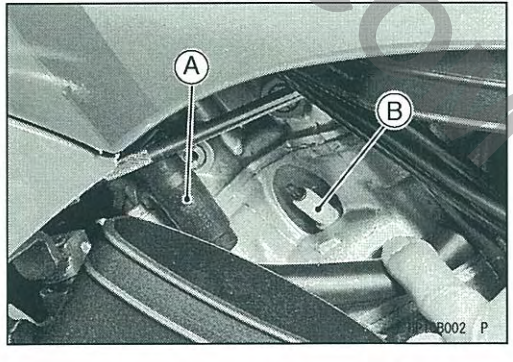


Rear Side:

- Remove:
  Clamp Screws [A] and Clamps
  Rubber Air Duct [B]



- Remove:
  Spark Plug Cap [A]
  Spark Plug [B]



Spark Plug Installation

- Tighten:

Torque - Spark Plugs: 13 N·m (1.3 kgf·m, 113 in·lb)

- Fit the spark plug caps securely.
- Pull up the spark pug caps lightly to make sure of the installation of the spark plug caps.

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