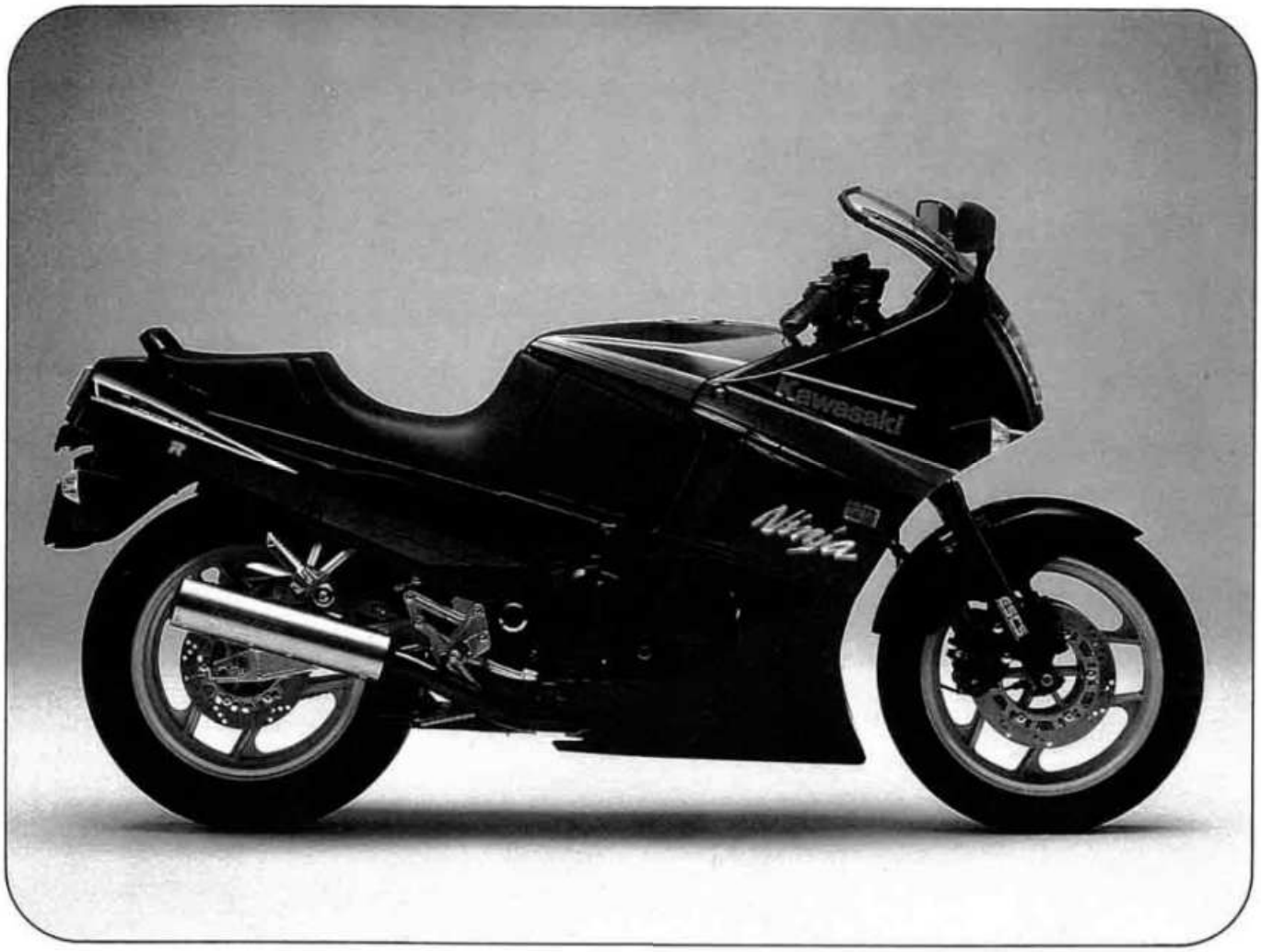
Kawasaki

Ninja600R
GPX600R
GPX500R



Motorcycle Service Manual Supplement

Quick Reference Guide

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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.

Kawasaki

Ninja 600R
GPX600R
GPX500R

Motorcycle
Service Manual

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No liability can be accepted for any inaccuracies or omissions in this publication, although every possible care has been taken to make it as complete and accurate as possible.

The right is reserved to make changes at any time without prior notice and without incurring an obligation to make such changes to products manufactured previously. See your Motorcycle dealer for the latest information on product improvements incorporated after this publication.

All information contained in this publication is based on the latest product information available at the time of publication. Illustrations and photographs in this publication are intended for reference use only and may not depict actual model component parts.

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LIST OF ABBREVIATIONS

A	ampere(s)	lb	pound(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) Celsius	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)		



This warning may apply to any of the following components or any assembly containing one or more of these components:–

Brake Shoes or Pads
Clutch Friction Material
Gaskets
Insulators

SAFETY INSTRUCTIONS

- Operate if possible out of doors or in a well ventilated place.
- Preferably use hand tools or low speed tools equipped, if necessary, with an appropriate dust extraction facility. If high speed tools are used, they should always be so equipped.
- If possible, dampen before cutting or drilling.
- Dampen dust and place it in properly closed receptacle and dispose of it safely.

Read OWNER'S MANUAL before operating.

EMISSION CONTROL INFORMATION

To protect the environment in which we all live, Kawasaki has incorporated crankcase emission (1) and exhaust emission (2) control systems in compliance with applicable regulations of the United States Environmental Protection Agency and California Air Resources Board. Additionally, Kawasaki has incorporated an evaporative emission control system (3) in compliance with applicable regulations of the California Air Resources Board on vehicles sold in California only.

1. Crankcase Emission Control System

   This system eliminates the release of crankcase vapors into the atmosphere. Instead, the vapors are routed through an oil separator to the intake side of the engine. While the engine is operating, the vapors are drawn into combustion chamber, where they are burned along with the fuel and air supplied by the carburetion system.

2. Exhaust Emission Control System

   This system reduces the amount of pollutants discharged into the atmosphere by the exhaust of this motorcycle. The fuel and ignition systems of this motorcycle have been carefully designed and constructed to ensure an efficient engine with low exhaust pollutant levels.

3. Evaporative Emission Control System

   Vapors caused by fuel evaporation in the fuel system are not vented into the atmosphere. Instead, fuel vapors are routed into the running engine to be burned, or stored in a canister when the engine is stopped. Liquid fuel is caught by a vapor separator and returned to the fuel tank.

The Clean Air Act, which is the Federal law covering motor vehicle pollution, contains what is commonly referred to as the Act's "tampering provisions."

"Sec. 203(a) The following acts and the causing thereof are prohibited...

(3)(A) for any person to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title prior to its sale and delivery to the ultimate purchaser, or for any manufacturer or dealer knowingly to remove or render inoperative any such device or element of design after such sale and delivery to the ultimate purchaser.

(3)(B) for any person engaged in the business of repairing, servicing, selling, leasing, or trading motor vehicles or motor vehicle engines, or who operates a fleet of motor vehicles knowingly to remove or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this title following its sale and delivery to the ultimate purchaser..."

(Continued on next page.)

NOTE

- *The phrase "remove or render inoperative any device or element of design" has been generally interpreted as follows:*
  1. *Tampering does not include the temporary removal or rendering inoperative of devices or elements of design in order to perform maintenance.*
  2. *Tampering could include:*
     a. *Maladjustment of vehicle components such that the emission standards are exceeded.*
     b. *Use of replacement parts or accessories which adversely affect the performance or durability of the motorcycle.*
     c. *Addition of components or accessories that result in the vehicle exceeding the standards.*
     d. *Permanently removing, disconnecting, or rendering inoperative any component or element of design of the emission control systems.*

WE RECOMMEND THAT ALL DEALERS OBSERVE THESE PROVISIONS OF FEDERAL LAW, THE VIOLATION OF WHICH IS PUNISHABLE BY CIVIL PENALTIES NOT EXCEEDING $10,000 PER VIOLATION.

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

- Replacement of the original exhaust system or muffler with a component not in compliance with Federal regulations.
- Removal of the muffler(s) or any internal portion of the muffler(s).
- Removal of the air box or air box cover.
- Modifications to the muffler(s) or air intake system by cutting, drilling, or other means if such modifications result in increased noise levels.

Foreword

This Ninja 600R/GPX600R/GPX500R Service Manual Supplement is designed to be used in conjunction with the GPZ500R/GPZ600R Motorcycle Service Manual (P/N 99924-1055-01). The maintenance and repair procedures described in this supplement are only those that are unique to the Ninja 600R/GPX600R/GPX500R (ZX600C/ZX500B) motorcycle. Most service operation are described in the base Service Manual. Complete and proper servicing of the Ninja 600R/GPX600R/GPX500R motorcycle therefore requires both this supplement and the base Service Manual.

The base Service Manual and this Supplement are designed primarily for use by motorcycle mechanics in a properly equipped shop. However, they contain enough detail and basic information to make them useful to the operator who desires to perform his own basic maintenance and repair work. A basic knowledge of mechanics, the proper use of tools, and workshop procedures must be understood in order to carry out maintenance and repair satisfactorily. Whenever the operator has insufficient experience or doubts his ability to do the work, the adjustments, maintenance, and repair should be carried out only by qualified mechanics.

In order to perform the work efficiently and to avoid costly mistakes, the mechanic should read the text, thoroughly familiarize himself with the procedures before starting work, and then do the work carefully in a clean area. Whenever special tools and equipment are specified, makeshift tools or equipment should not be used. Precision measurements can only be made if the proper instruments are used, and the use of substitute tools may adversely affect safe operation of the motorcycle.

For the duration of the warranty period, we recommend that all repairs and scheduled maintenance be performed in accordance with this service manual. Any owner maintenance or repair procedure not performed in accordance with this manual may void the warranty.

To get the longest life out of your Motorcycle:

- Follow the Periodic Maintenance Chart in the Service Manual.
- Be alert for problems and non-scheduled maintenance.
- Use proper tools introduced by the Special Tool Catalog. Genuine parts provided as spare parts are listed in the Parts Catalog.
- Follow the procedures in this manual carefully. Don't take shortcuts.
- Remember to keep complete records of maintenance and repair with dates and any new parts installed.

How to Use this Manual

In preparing this manual, we divided the product into its major systems. These systems became the manual's chapters. All information for a particular system from adjustment through disassembly and inspection is located in a single chapter.

The Quick Reference Guide shows you all of the products system and assists in locating their chapters. Each chapter in turn has its own comprehensive Table of Contents.

The Periodic Maintenance Chart is located in the General Information chapter. The chart gives a time schedule for required maintenance operations.

If you want spark plug information, for example, go to the Periodic Maintenance Chart first. The chart tells you how frequently to clean and gap the plug. Next, use the Quick Reference Guide to locate the Electrical System chapter. Then, use the Table of Contents on the first page of the chapter to find the Spark Plug section.

Whenever you see these WARNING and CAUTION symbols, heed their instructions! Always follow safe operating and maintenance practices.

WARNING

○This warning symbol identifies special instructions or procedures which, if not correctly followed, could result in personal injury, or loss of life.

CAUTION

○This caution symbol identifies special instructions or procedures which, if not strictly observed, could result in damage to or destruction of equipment.

This manual contains five more symbols (in addition to WARNING and CAUTION) which will help you distinguish different types of information.

NOTE

○*This note symbol indicates points of particular interest for more efficient and convenient operation.*

●Indicates a procedural step or work to be done.

○Indicates a procedural sub-step or how to do the work of the procedural step it follows. It also precedes the text of a WARNING, CAUTION, or NOTE.

★Indicates a conditional step or what action to take based on the results of the test or inspection in the procedural step or sub-step it follows.

☆Indicates a conditional sub-step or what action to take based upon the results of the conditional step it follows.

In most chapters an exploded view illustration of the system components follows the Table of Contents. In these illustrations you will find the instructions indicating which parts require specified tightening torque, oil, grease or a locking agent during assembly.

1

General Information

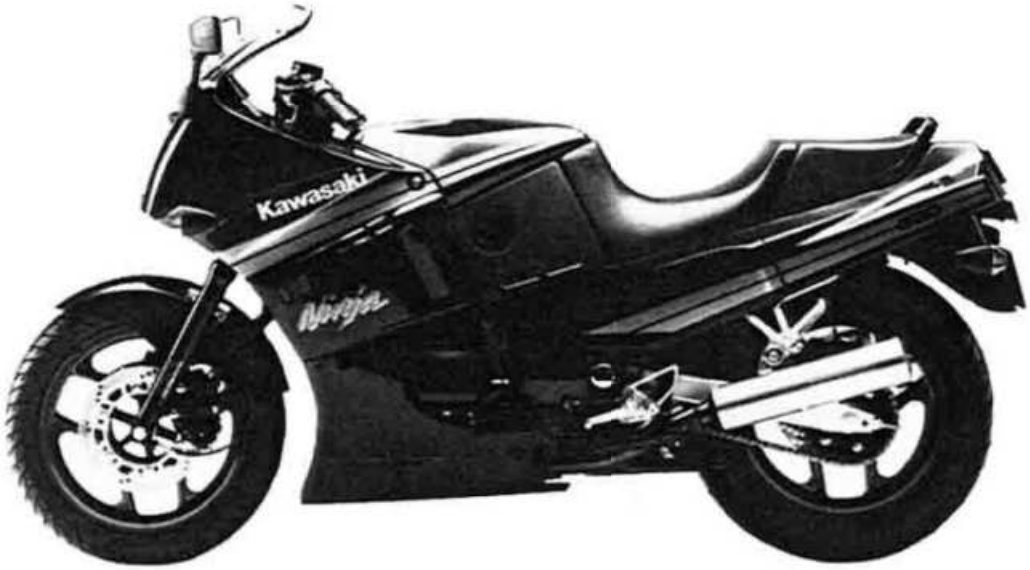
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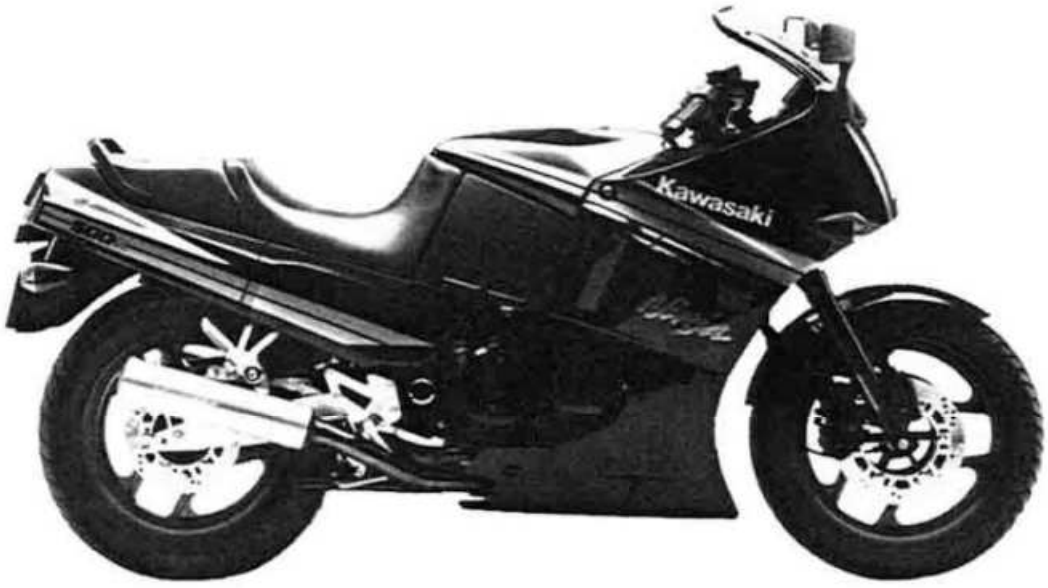
*.....Refer to Base Manual

Model Identification

ZX600-C1 (US Model) Left Side View:



ZX600-C1 (US Model) Right Side View:



General Specifications

Items		ZX600-C1	ZX500-B1
Dimensions:			
Overall length		2 095 mm, (G) (Gr) (N) (S) (Sw) (UK) 2 130 mm, (C) (Ca) (SA) (U) 2 110 mm	2 095 mm, (FI) 2 130 mm
Overall width		690 mm	←
Overall height		1 170 mm, (C) (Ca) (SA) (U) 1 150 mm	1 170 mm
Wheelbase		1 425 mm, (AR) 1 430 mm	←
Road clearance		115 mm	←
Seat height		755 mm	←
Dry weight		180 kg, (Ca) 180.5 kg	180 kg
Curb weight:	Front	100 kg, (C) (SA) (U) 101 kg, (Ca) 101.5 kg	100 kg – – –
	Rear	105 kg	105 kg
Fuel tank capacity		18.0 L	←
Performance:			
Braking distance		12.5 m from 50 km/h	←
Minimum turning radius		2.8 m	←
Engine:			
Type		4-stroke, DOHC, 4-cylinder	←
Gooling system		Liquid-cooled	←
Bore and stroke		60.0 x 52.4 mm	55.0 x 52.4 mm
Displacement		592 mL	497 mL
Compression ratio		11.7	11.0
Maximum horsepower		62.5 kW (85 PS) @11 000 r/min (rpm), (AR) 53.0 kW (72 PS) @10 500 r/min (rpm), (F) 59.8 kW @11 000 r/min (rpm) [UTAC's norm], (G) DIN 62.5 kW (85 PS) @11 000 r/min (rpm), (S) 35.3 kW (48 PS) @6 000 r/min (rpm), (U) (Ca) — ,	35.3 kW (48 PS) @11 000 r/min (rpm), (FI) 55.9 kW (76 PS) @11 500 r/min (rpm) – – – – – –
Maximum torque		56.9 N-m (5.8 kg-m, 42.0 ft-lb) @9 000 r/min (rpm), (S) @5 500 r/min (rpm), (AR) 51.0 N-m (5.2 kg-m, 37.6 ft-lb) @8 500 r/min (rpm), (F) — , (U) (Ca) — ,	34.3 N-m (3.5 kg-m, 25.3 ft-lb) @5 000 r/min (rpm), (FI) 48.1 N-m (4.9 kg-m, 35.4 ft-lb) @10 500 r/min (rpm)
Carburetion system		Carburetors, Keihin CVK32 x 4	Carburetors, Keihin CVK30 x 4
Starting system		Electric starter	←
Ignition system		Battery and coil (transistorized)	←
Timing advance		Electronically advanced	←
Ignition timing		From 10° BTDC @1 050 r/min (rpm) to 32.5° BTDC @10 000 r/min (rpm), (Ca) From 7.5° BTDC @1 300 r/min (rpm) to 35° BTDC @10 000 r/min (rpm)	From 10° BTDC 1 200 r/min (rpm) to 32.5° BTDC @10 000 r/min (rpm)
Spark plug		NGK DR8ES or ND X27ESR-U, (AR) (Ca) (I) (SA) (U) NGK D9EA or ND X27ES-U	NGK DR8ES or ND X27ESR-U
Cylinder numbering method		Left to right, 1-2-3-4	←
Firing order		1-2-4-3	←
Valve timing:			
Inlet	Open	37° BTDC	←
	Close	67° ABDC	←
	Duration	284°	←
Exhaust	Open	72° BBDC	←
	Close	32° ATDC	←
	Duration	284°	←
Lubrication sytem		Forced lubrication (wet sump)	←

Items		ZX600-C1	ZX500-B1
Engine Oil:	Grade	SE or SF class	←
	Viscosity	SAE10W-40, 10W-50, 20W-40, or 20W-50	←
	Capacity	3.0 L	←
Drive Train:			
Primary reduction system:			
Type		Chain	←
Reduction ratio		2.641 (27/23 x 63/28)	←
Clutch type		Wet multi disc	←
Transmission:			
Type		6-speed, constant mesh, return shift	←
Gear ratios:	1st	2.571 (36/14)	←
	2nd	1.777 (32/18)	←
	3rd	1.380 (29/21)	←
	4th	1.125 (27/24)	←
	5th	0.961 (25/26)	←
	6th	0.851 (23/27)	←
Final drive system:			
Type		Chain drive	←
Reduction ratio		2.600 (39/15), (AR) 2.533 (38/15)	2.800 (42/15)
Overall drive ratio		5.850, (AR) 5.700 @Top gear	6.300 @Top gear
Frame:			
Type		Tubular, double cradle	←
Caster (rake angle)		27°	←
Trail		91 mm	←
Front tire:	Type	Tubeless	←
	Size	110/80 V16 – V240 or 110/80 V16,	←
	(AR) (G) (S) (SA)	110/80 V 16 – V240,	- - -
	(C) (Ca) (U)	110/80 V16	- - -
Rear tire:	Type	Tubeless	←
	Size	130/90 V16 – V240 or 130/90 VB16,	←
	(AR) (G) (S) (SA)	130/90 V16 – V240,	- - -
	(C) (Ca) (U)	130/90 V16	- - -
Front suspension:			
Type		Telescopic fork	←
Wheel travel		140 mm	←
Rear suspension:			
Type		Swing arm (uni-trak)	←
Wheel travel		130 mm	←
Brake type:	Front	Dual disc	←
	Rear	Single disc	←
Electrical Equipment:			
Battery		12 V 12 Ah	←
Headlight:	Type	Semi-sealed beam	←
	Bulb	12 V 60/55 W (quartz-halogen)	←
Tail/brake light		12 V 5/21 W x 2, (C) (Ca) (SA) (U) 12 V 8/27 W x 2	12 V 5/21 W x 2
Alternator:	Type	Three-phase AC	←
	Rated output	20 A @10 000 r/min (rpm), 14 V	←

Specifications are subject to change without notice, and may not apply to every country.

(AR): Australian Model
(C) : Canadian Model
(Ca): California Model
(F) : French Model
(Fi): Finnish Model
(G) : West German Model
(Gr): Greek Model
(I) : Italian Model
(N) : Norwegian Model
(S) : Swiss Model
(SA): South African Model
(Sw): Swedish Model
(U) : US Model
(UK):U.K. Model

Periodic Maintenance Chart

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

OPERATION \ FREQUENCY	Whichever comes first — Every	*ODOMETER READING 800 km	5,000 km	10,000 km	15,000 km	20,000 km	25,000 km	30,000 km	See Page
Spark plug -- clean and gap †			•	•	•	•	•	•	(15-22)
Valve clearance -- check †		•		•		•		•	(4-18)
Air suction valve (U) -- check †			•	•	•	•	•	•	(4-7)
Air cleaner element -- clean		•		•		•		•	2-9
Air cleaner element -- replace	5 cleanings						•		2-7
Throttle grip play -- check †		•		•		•		•	(2-5)
Idle speed -- check †		•	•	•	•	•	•	•	(2-7)
Engine vacuum synchronization -- check †		•	•	•	•	•	•	•	(2-7)
Fuel system -- check †				•		•		•	(2-9)
Evaporative emission control system (Cal) -- check †		•	•	•	•	•	•	•	(2-18)
Engine oil -- change	year	•		•		•		•	6-5
Oil filter -- replace		•		•		•		•	6-5
Radiator hoses, connections -- check †	year	•		•		•		•	3-6
Coolant -- change	2 years							•	3-4
Fuel hose -- replace	4 years								— — —
Clutch -- adjust		•	•	•	•	•	•	•	5-4
Drive chain wear -- check †			•	•	•	•	•	•	(10-5)
Drive chain -- lubricate	300 km								(10-6)
Drive chain slack -- check †	800 km								(10-4)
Brake lining or pad wear -- check †			•	•	•	•	•	•	11-6
Brake fluid level -- check †	month	•	•	•	•	•	•	•	(11-11)
Brake fluid -- change	2 year					•			11-7
Brake hose -- replace	4 years								11-8
Brake master cylinder cup and dust seal -- replace	2 years								(11-9)
Caliper piston seal and dust seal -- replace	2 years								(11-6)
Brake light switch -- check †		•	•	•	•	•	•	•	(15-34)
Steering -- check †		•	•	•	•	•	•	•	13-3
Steering stem bearing -- lubricate	2 years					•			(13-6)
Front fork oil -- change								•	12-6
Tire wear -- check †			•	•	•	•	•	•	9-5
Swing arm pivot, uni-trak linkage -- lubricate				•		•		•	12-12, 12-13
Battery electrolyte level -- check †	month	•	•	•	•	•	•	•	(15-10)
General lubrication -- perform			•	•	•	•	•	•	16-2
Nut, bolt, and fastener tightness -- check †		•		•		•		•	(16-7)

* : For higher odometer readings, repeat at the frequency interval established here.
† : Replace, add, adjust, clean, or torque if necessary.
(Cal) : California model only
(U) : US model only
(xx – xx): Reference page in the Base Manual.

Torque and Locking Agent

Tighten all bolts and nuts to the proper torque using an accurate torque wrench. An insufficiently tightened bolt or nut may become damaged or fall off, possibly resulting in damage to the motorcycle and injury to the rider. A bolt or nut which is overtightened may become damaged, strip an internal thread, or break and then fall out. The following table lists the tightening torque for the major bolts and nuts, and the parts requiring use of a non-permanent locking agent or liquid gasket.

When checking the tighening torque of the bolts and nuts, first loosen the bolt or nut by half a turn and then tighten to specified torque.

Letters used in the "Remarks" column mean:
L : Apply a non-permanent locking agent to the threads.
LG : Apply liquid gasket to the threads.
SS : Apply silicone sealant to the threads.
S : Tighten the fasteners following the specified sequence.

Fastener	Torque			Remarks
	N-m	kg-m	ft-lb	
Cooling System:				
Cooling Fan Switch	18	1.8	13 in-lb	
Fan Mounting Nut	3.2	0.33	28 in-lb	
Water Temperature Sensor	7.8	0.8	69 in-lb	SS
Cylinder Head Nuts	23	2.3	16.5	
Coolant Drain Plug	7.8	0.8	69 in-lb	
Engine Top End:				
Cylinder Head Cover Bolts	9.8	1.0	7.0	
Cylinder Head Nuts	23	2.3	16.5	S
Camshaft Cap Bolts	12	1.2	8.5	S
Camshaft Sprocket Bolts	15	1.5	11.0	L
Rocker Shaft Plugs	9.8	1.0	7.0	
Valve Adjuster Locknuts	15	1.5	11.0	
Camshaft Chain Guide Bracket Mounting Bolts	15	1.5	11.0	
Cylinder Head Bolts	12	1.2	8.5	
Cylinder Nuts	9.8	1.0	7.0	
Camshaft Chain Tensioner Cap	25	2.5	18.0	
Clutch:				
Clutch Hub Nut	130	13.5	98	
Clutch Spring Bolts	8.8	0.9	78 in-lb	
Clutch Cover Bolts	8.8	0.9	78 in-lb	
Engine Lubrication System:				
Camshaft Cap Bolts	12	1.2	8.5	
Rocker Shaft Plugs	9.8	1.0	7.0	
Oil Pipe Banjo Bolts	12	1.2	8.5	
Oil Hose Banjo Bolts	25	2.5	18.0	
Oil Passage Plug	15	1.5	11.0	
Oil Pressure Relief Valve	15	1.5	11.0	L
Oil Pressure Switch	15	1.5	11.0	SS
Engine Oil Drain Plug	20	2.0	14.5	
Oil Pan Bolts	12	1.2	8.5	
Oil Filter Mounting Bolt	20	2.0	14.5	

Fastener	Torque			Remarks
	N-m	kg-m	ft-lb	
Engine Removal/Installation:				
Engine Bracket Bolts (Front Left and Right)	19	1.9	13.5	
Engine Mounting Bolts (Front Left and Right)	23	2.3	16.5	
Engine Bracket Bolts (Rear)	42	4.3	31	
Engine Mounting Nuts (Rear Upper and Lower)	23	2.3	16.5	
Crankshaft/Transmission:				
Camshaft Chain Guide Bracket Mounting Bolts	15	1.5	11.0	
Connecting Rod Big End Cap Nuts	36	3.7	27	
Primary Chain Guide Mounting Bolts	12	1.2	8.5	L
Primary Chain Guide Bracket Mounting Bolts	12	1.2	8.5	L
Breather Plate Mounting Bolts	9.8	1.0	7.0	L
Lower Crankcase Bolts (8 mm)	27	2.8	20	S
Lower Crankcase Bolts (6 mm)	12	1.2	8.5	S
Upper Crankcase Bolts	12	1.2	8.5	S
Primary Chain Tensioner Bolt	25	2.5	18.0	
Oil Passage Plug	15	1.5	11.0	
Neutral Switch	15	1.5	11.0	
Starter Clutch Allen Bolts	34	3.5	25	L
Secondary Shaft Nut	59	6.0	43	
Return Spring Pin	20	2.0	14.5	L
Shift Drum Guide Bolt	25	2.5	18.0	
Shift Drum Positioning Bolt	25	2.5	18.0	
Shift Pedal Pivot Bolt	23	2.3	16.5	
Wheel/Tires:				
Front Axle Nut	88	9.0	65	
Rear Axle Nut	110	11.0	80	
Air Valve Nuts	1.5	0.15	13 in-lb	
Final Drive:				
Engine Sprocket Bolts	9.8	1.0	7.0	
Rear Sprocket Nuts	74	7.5	54	
Rear Coupling Studs	—	—	—	L
Brakes:				
Brake Hose Banjo Bolts	25	2.5	18.0	
Front Reservoir Cap Screws	1.5	0.15	13 in-lb	
Brake Lever Pivot Bolt	1.0	0.1	9 in-lb	
Brake Lever Pivot Locknut	5.9	0.6	52 in-lb	
Front Master Cylinder Clamp Bolts	8.8	0.9	78 in-lb	S
Front Brake Light Switch Mounting Screw	1.3	0.13	11 in-lb	
Brake Hose Joint, Horn Mounting Bolts	29	3.0	22	
Caliper Mounting Bolts (Front, Rear)	33	3.3	25	
Caliper Bleed Valves (Front, Rear)	7.8	0.8	69 in-lb	
Brake Disc Mounting Bolts (Front, Rear)	23	2.3	16.5	
Rear Reservoir Mounting Bolt	5.9	0.6	52 in-lb	
Rear Master Cylinder Mounting Bolts	23	2.3	16.5	
Torque Link Nuts	34	3.5	25	
Brake Pedal Adjuster Locknut	17.2	1.75	152 in-lb	

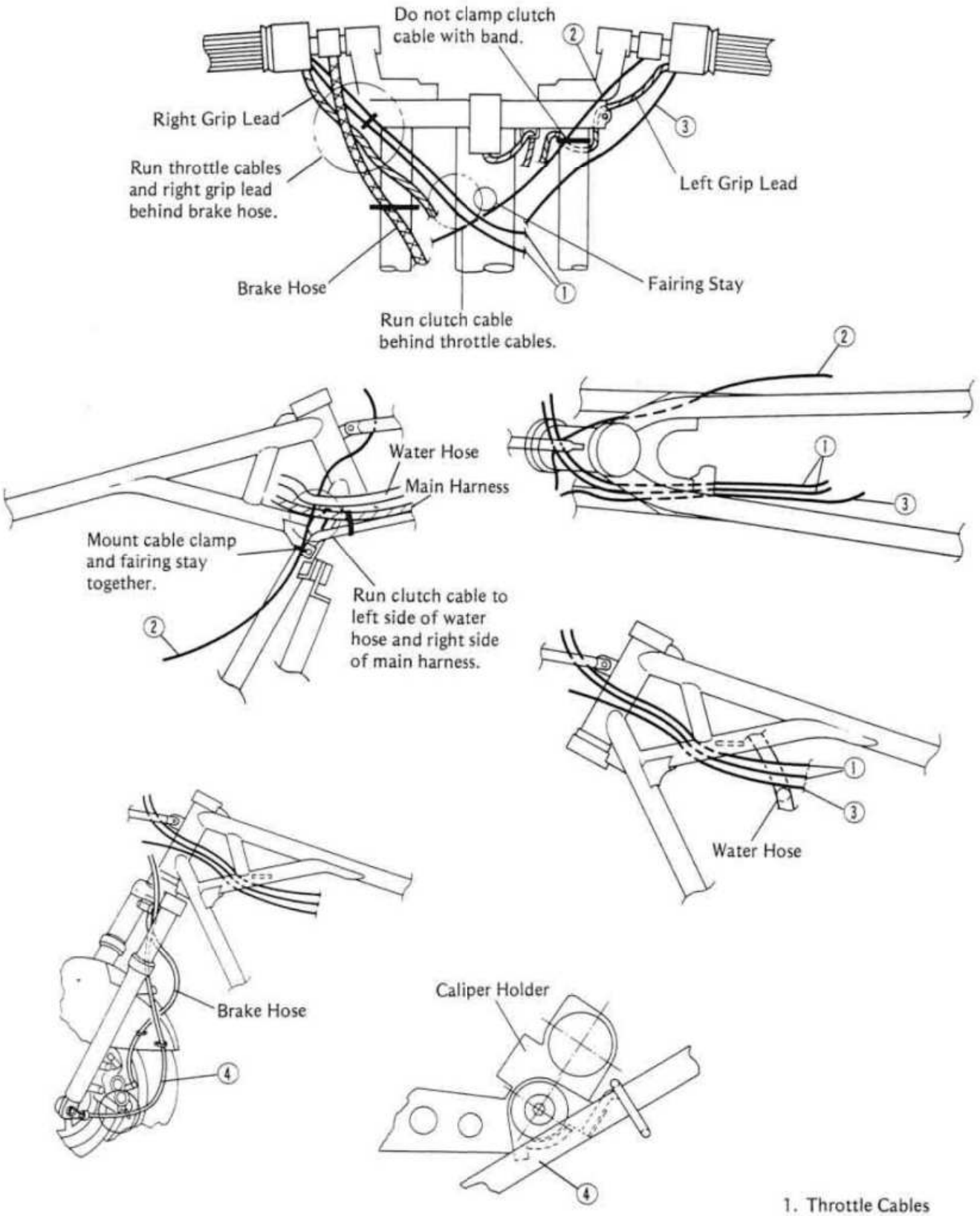
Fastener	Torque			Remarks
	N-m	kg-m	ft-lb	
Suspension:				
Front Fork Top Bolts	22.5	2.25	16.4	
Front Fork Clamp Bolts (Upper)	20.5	2.05	14.9	
Front Fork Clamp Bolts (Lower)	20.5	2.05	14.9	
Front Fork Oil Drain Screws	1.5	0.15	13	LG
Front Fork Bottom Allen Bolts	39	4.0	29	L
ESCS Unit Mounting Bolts	6.9	0.7	61 in-lb	L
Axle Clamp Bolt	20.5	2.05	14.9	
Swing Arm Pivot Nut	93	9.5	69	
Rear Shock Absorber Mounting Nuts (Upper, Lower)	49	5.0	36	
Adjusting Rod Locknut	0.5	0.05	4 in-lb	
Air Valve Mounting Nut	12.5	1.25	8.9	
Tie-Rod Mounting Nuts (Upper, Lower)	49	5.0	36	
Rocker Arm Pivot Nut	49	5.0	36	
Steering:				
Handlebar Bolts	22.5	2.25	16.4	
Handlebar Holder Bolts	22.5	2.25	16.4	
Steering Stem Head Nut	39	4.0	29	
Front Fork Clamp Bolts (Upper)	20.5	2.05	14.9	
Front Fork Clamp Bolts (Lower)	20.5	2.05	14.9	
Steering Stem Locknut	Hand-Tighten (about 4.9)	Hand-Tighten (about 0.5)	Hand-Tighten (about 43 in-lb)	
Frame:				
Rear Frame Mounting Bolts (Upper)	18.5	1.85	13.4	
Rear Frame Mounting Bolts (Lower)	44	4.5	33	
Electrical System:				
Front Brake Light Switch Mounting Screw	1.3	0.13	11 in-lb	
Water Temperature Sensor	7.8	0.8	69 in-lb	SS
Cooling Fan Switch	7.8	0.8	69 in-lb	
ESCS Unit Mounting Bolts	6.9	0.7	61 in-lb	L
Spark Plugs	14	1.4	10.0	
Alternator Cover Mounting Bolts	4.9	0.50	43 in-lb	
Alternator Rotor Bolt	145	15.0	110	
Alternator Stator Mounting Bolts	12	1.2	8.5	L (Only One)
Timing Rotor Bolt	25	2.5	18.0	
Pickup Coil Cover Mounting Bolts	4.9	0.50	43 in-lb	
Neutral Switch	15	1.5	11.0	SS
Oil Pressure Switch	15	1.5	11.0	SS

The table below, relating tightening torque to thread diameter, lists the basic torque for the bolts and nuts. Use this table for only the bolts and nuts which do not require a specific torque value. All of the values are for use with dry solvent-cleaned threads.

General Fasteners

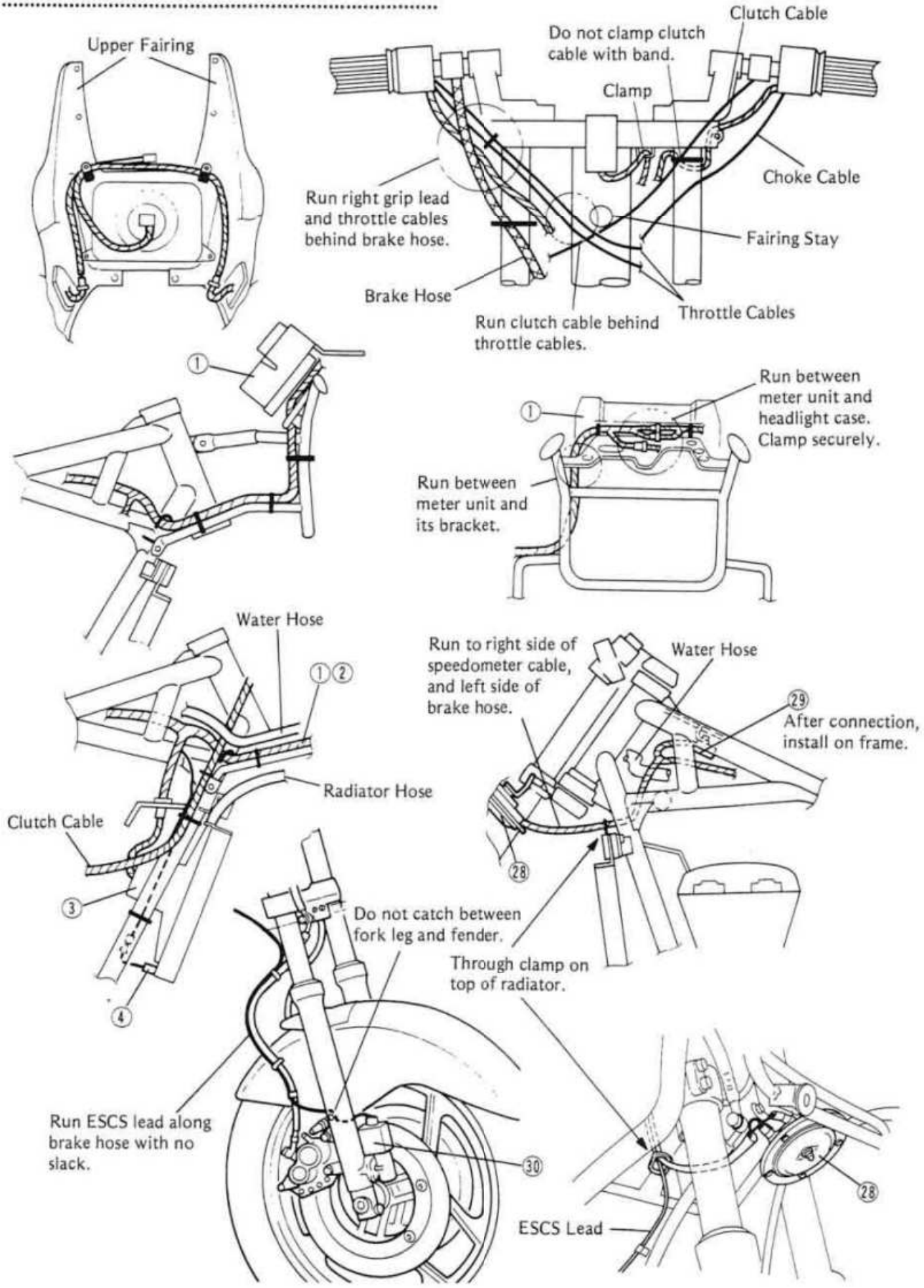
Threads dia. (mm)	Torque		
	N-m	kg-m	ft-lb
5	3.4 – 4.9	0.35 – 0.50	30 – 43 in-lb
6	5.9 – 7.8	0.60 – 0.80	52 – 69 in-lb
8	14 – 19	1.4 – 1.9	10.0 – 13.5
10	25 – 34	2.6 – 3.5	19.0 – 25
12	44 – 61	4.5 – 6.2	33 – 45
14	73 – 98	7.4 – 10.0	54 – 72
16	115 – 155	11.5 – 16.0	83 – 115
18	165 – 225	17.0 – 23.0	125 – 165
20	225 – 325	23 – 33	165 – 240

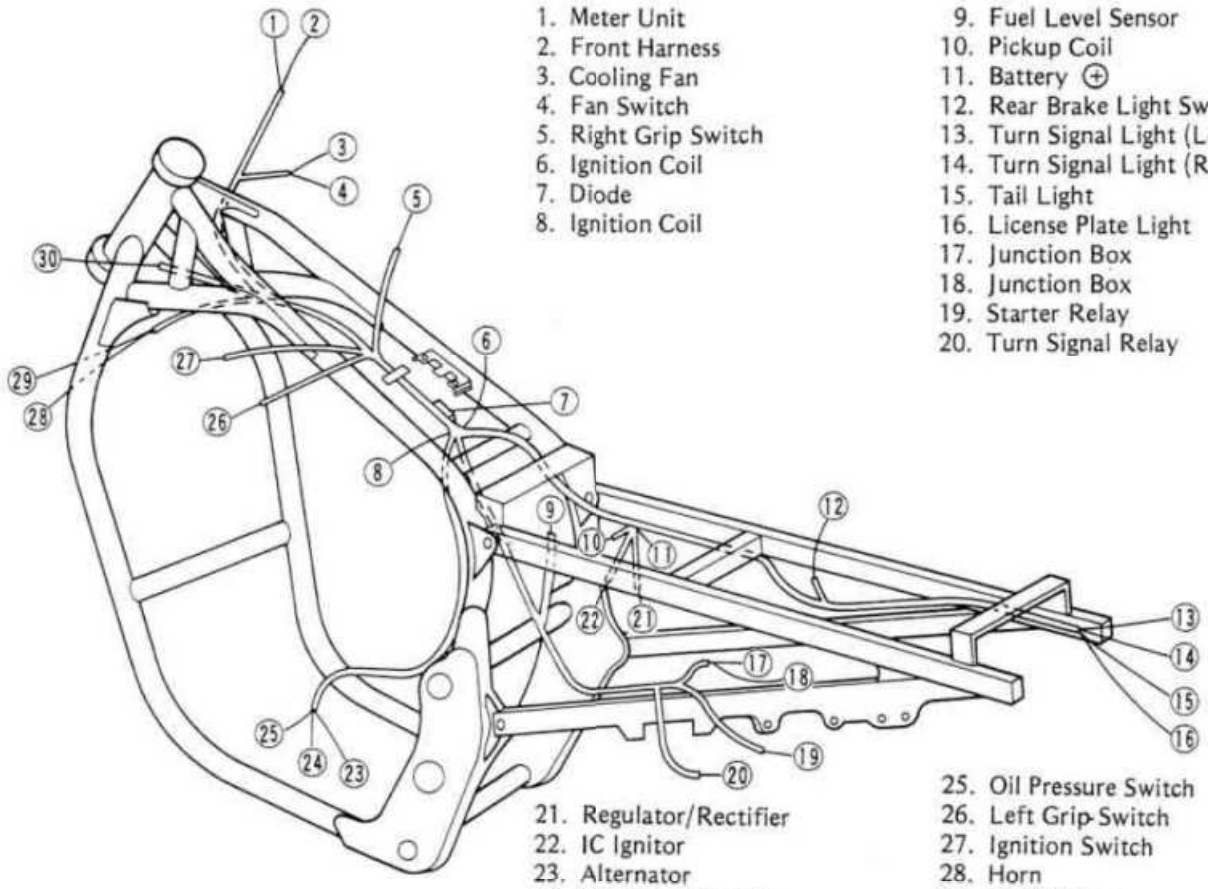
Cable Routing



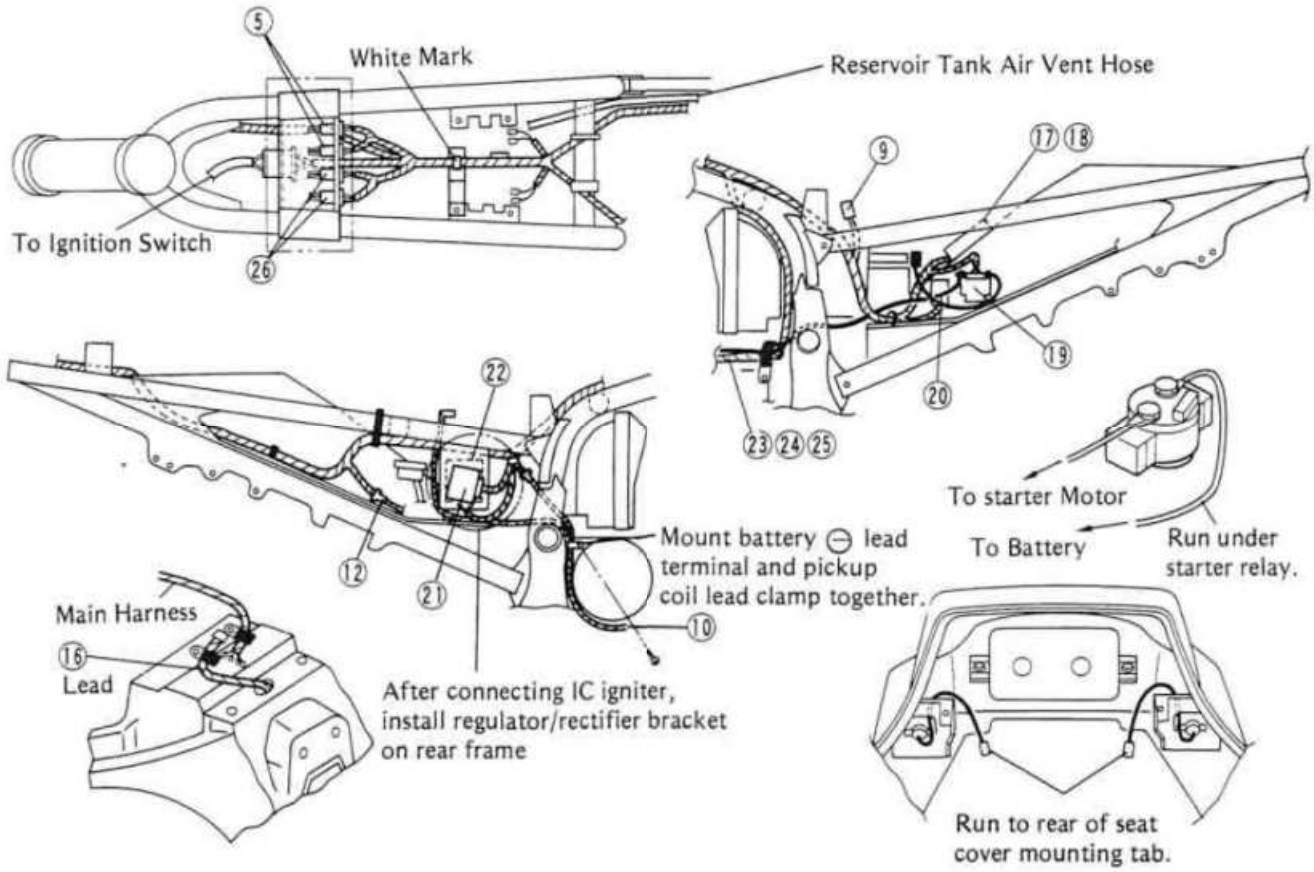
1. Throttle Cables
2. Clutch Cable
3. Choke Cable
4. Speedometer Cable

Wire Routing

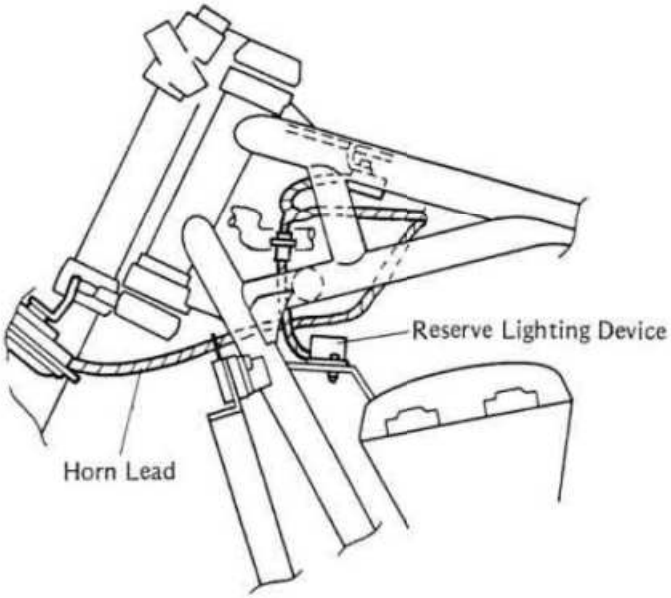




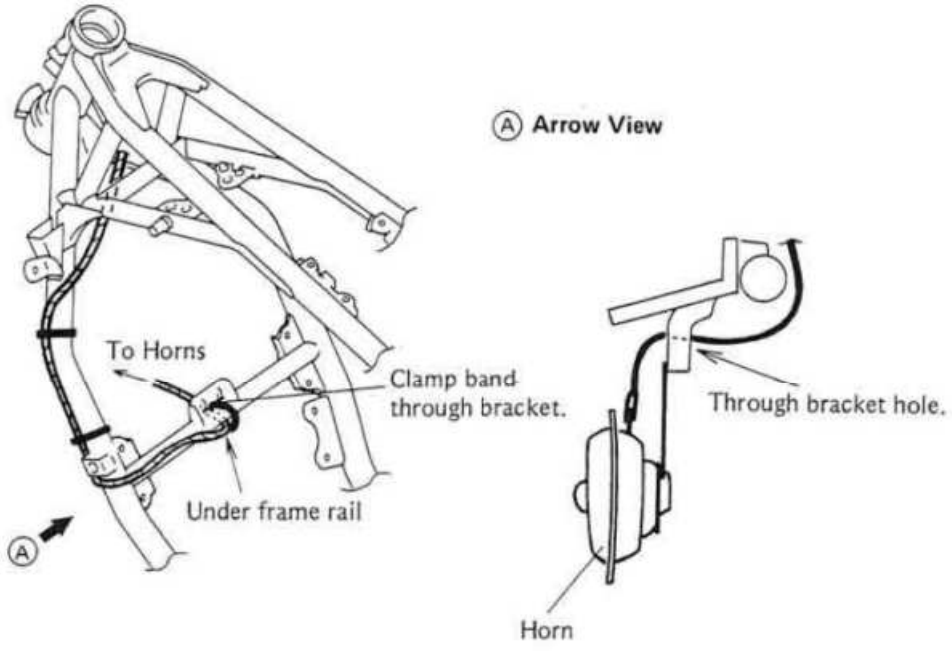
1. Meter Unit
2. Front Harness
3. Cooling Fan
4. Fan Switch
5. Right Grip Switch
6. Ignition Coil
7. Diode
8. Ignition Coil
9. Fuel Level Sensor
10. Pickup Coil
11. Battery ⊕
12. Rear Brake Light Switch
13. Turn Signal Light (Left)
14. Turn Signal Light (Right)
15. Tail Light
16. License Plate Light
17. Junction Box
18. Junction Box
19. Starter Relay
20. Turn Signal Relay
21. Regulator/Rectifier
22. IC Ignitor
23. Alternator
24. Side Stand Switch
25. Oil Pressure Switch
26. Left Grip Switch
27. Ignition Switch
28. Horn
29. ESCS Relay
30. ESCS Unit



Reserve Lighting Device Lead (US, Canadian Model)

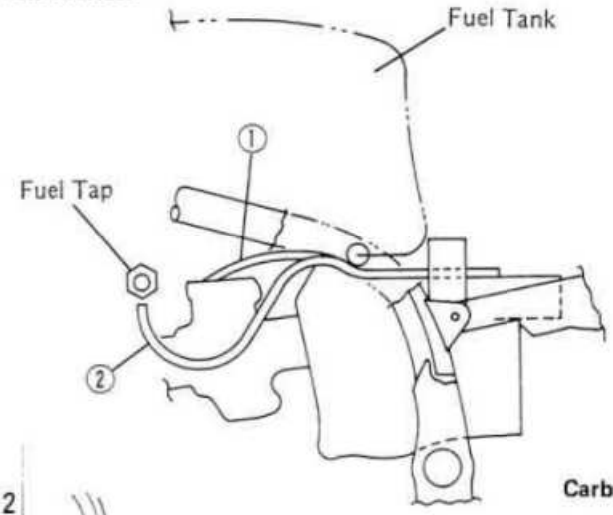


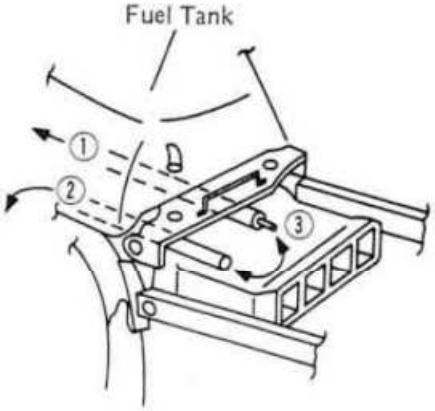
Horn Lead (Italian Model)

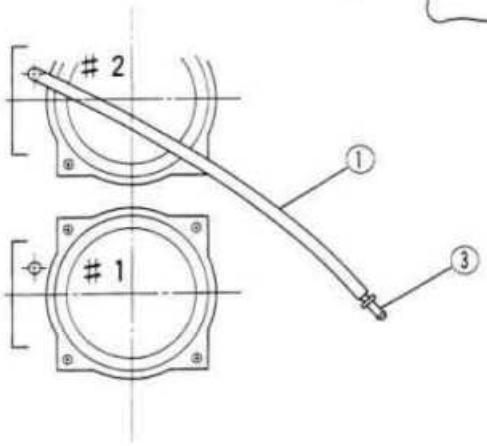


Hose Routing

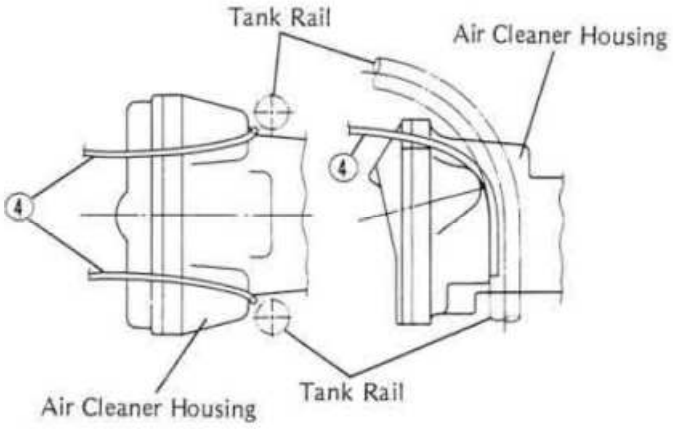
Fuel Tap Vacuum Hose



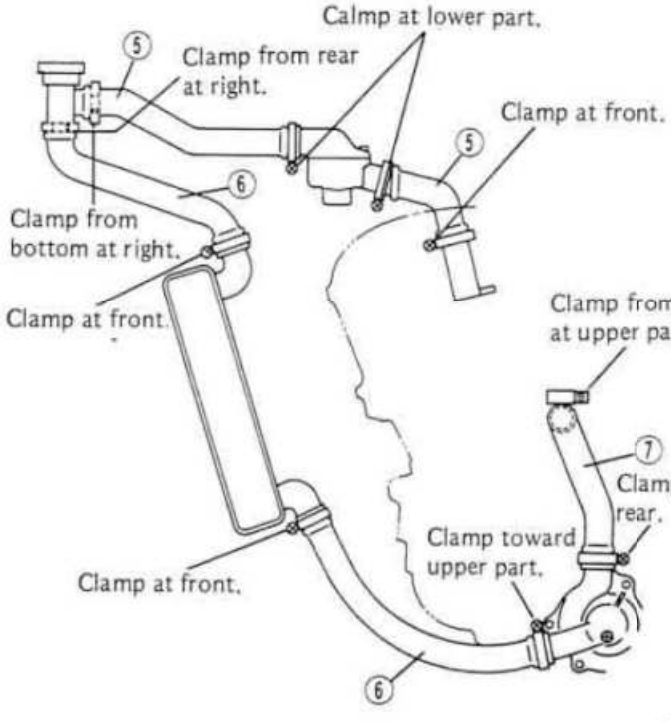


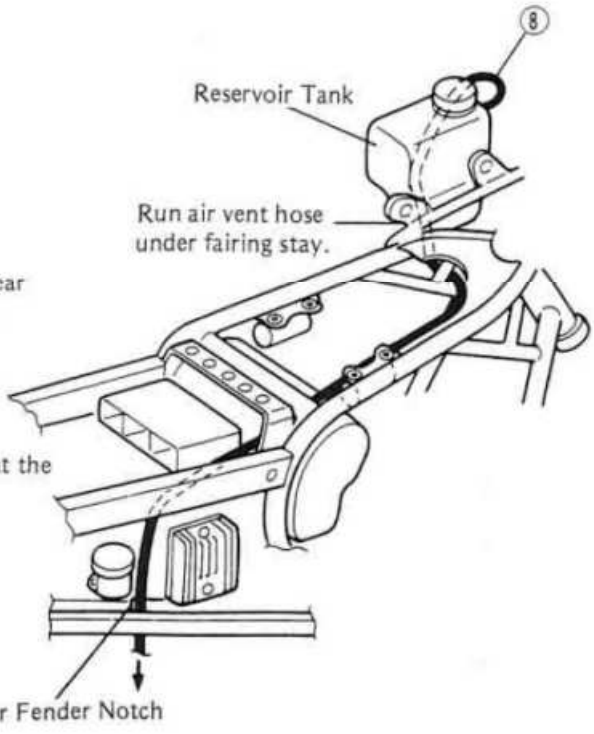


Carburetor Air Vent Hose

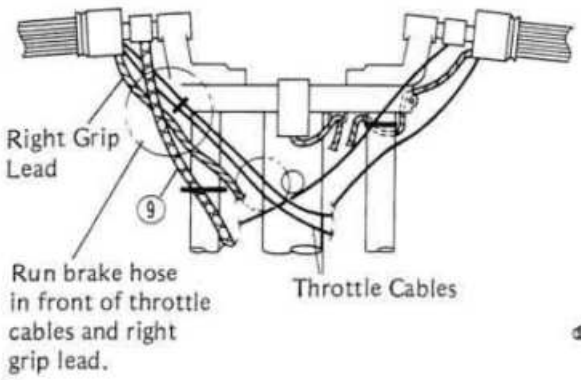


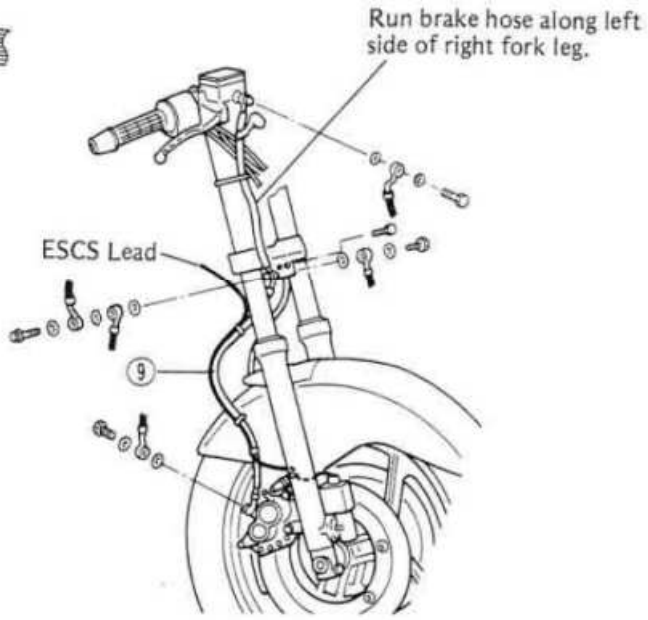
Cooling Hose

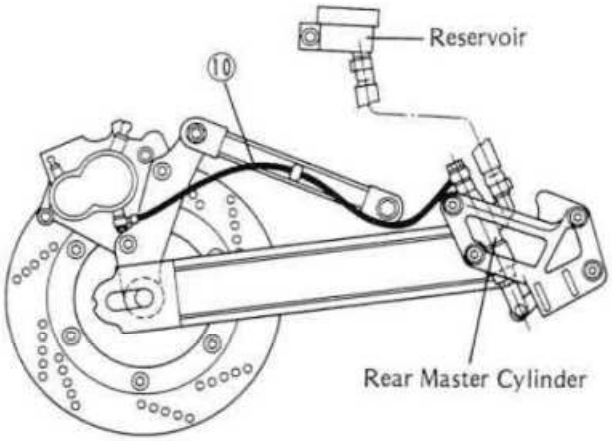


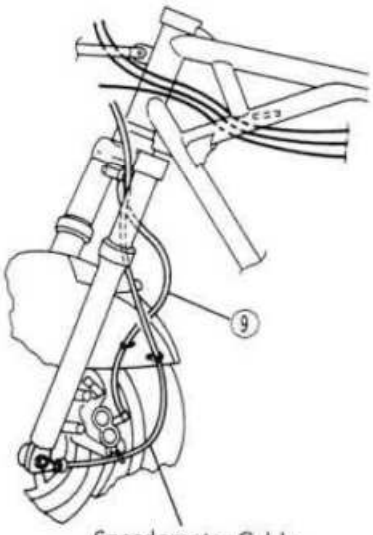


Brake Hose

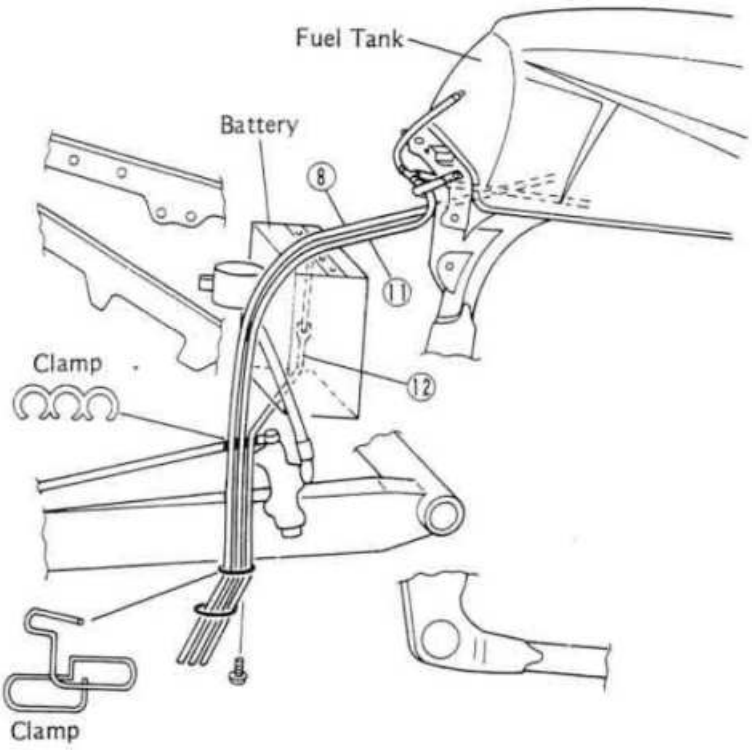








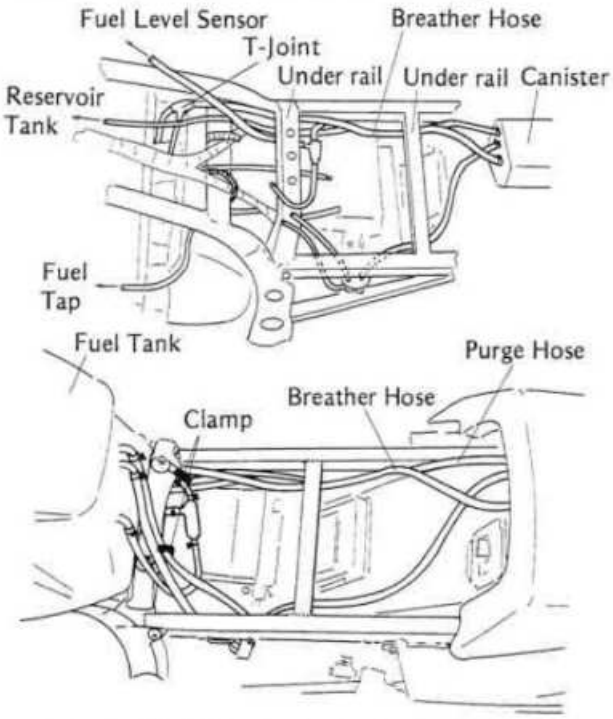
Vent Hose, Overflow Drain Hose



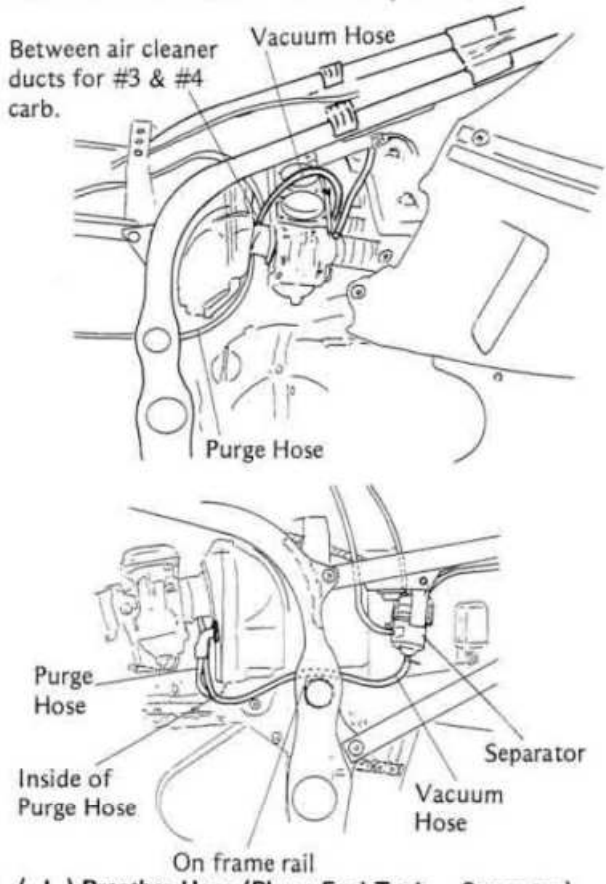
1. Fuel Tap Vacuum Hose (Carburetor End)
2. Fuel Tap Vacuum Hose (Fuel Tap End)
3. Vacuum Hose Connector
4. Carburetor Air Vent Hose
5. Water Hose
6. Radiator Hose
7. Water Pump Hose
8. Reservoir Tank Air Vent Hose
9. Front Brake Hose
10. Rear Brake Hose
11. Overflow Drain Hose
12. Battery Vent Hose

Evaporative Emission Control System (California Model)

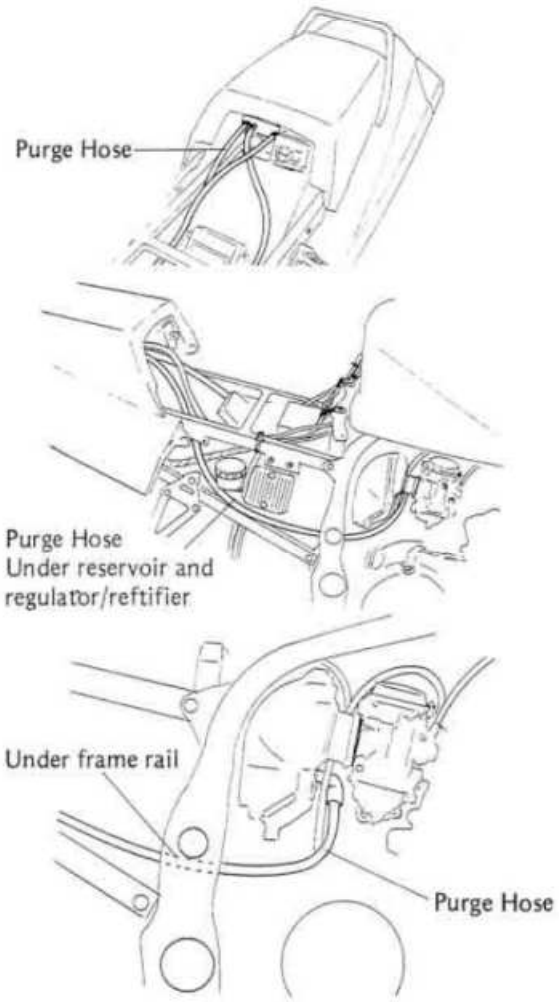
1. Breather Hose (Yellow : Carb. – Canister)



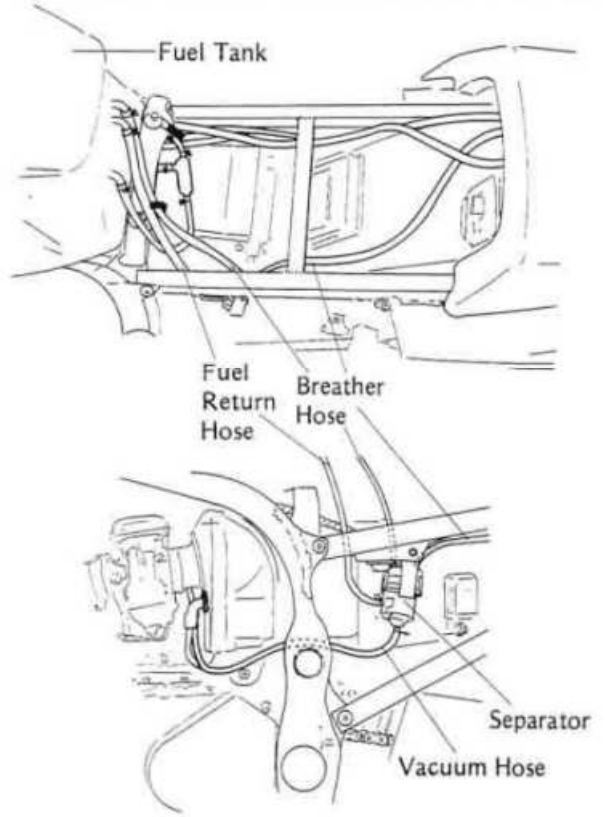
2. Vacuum Hose (White : Carb. – Separator)



3. Purge Hose (Green : Canister – Air Cleaner)



4. (I) Breather Hose (Blue : Fuel Tank – Separator)
(II) Breather Hose (Blue : Separator – Canister)
(III) Fuel Return Hose (Red : Fuel Tank – Separator)



Fuel System

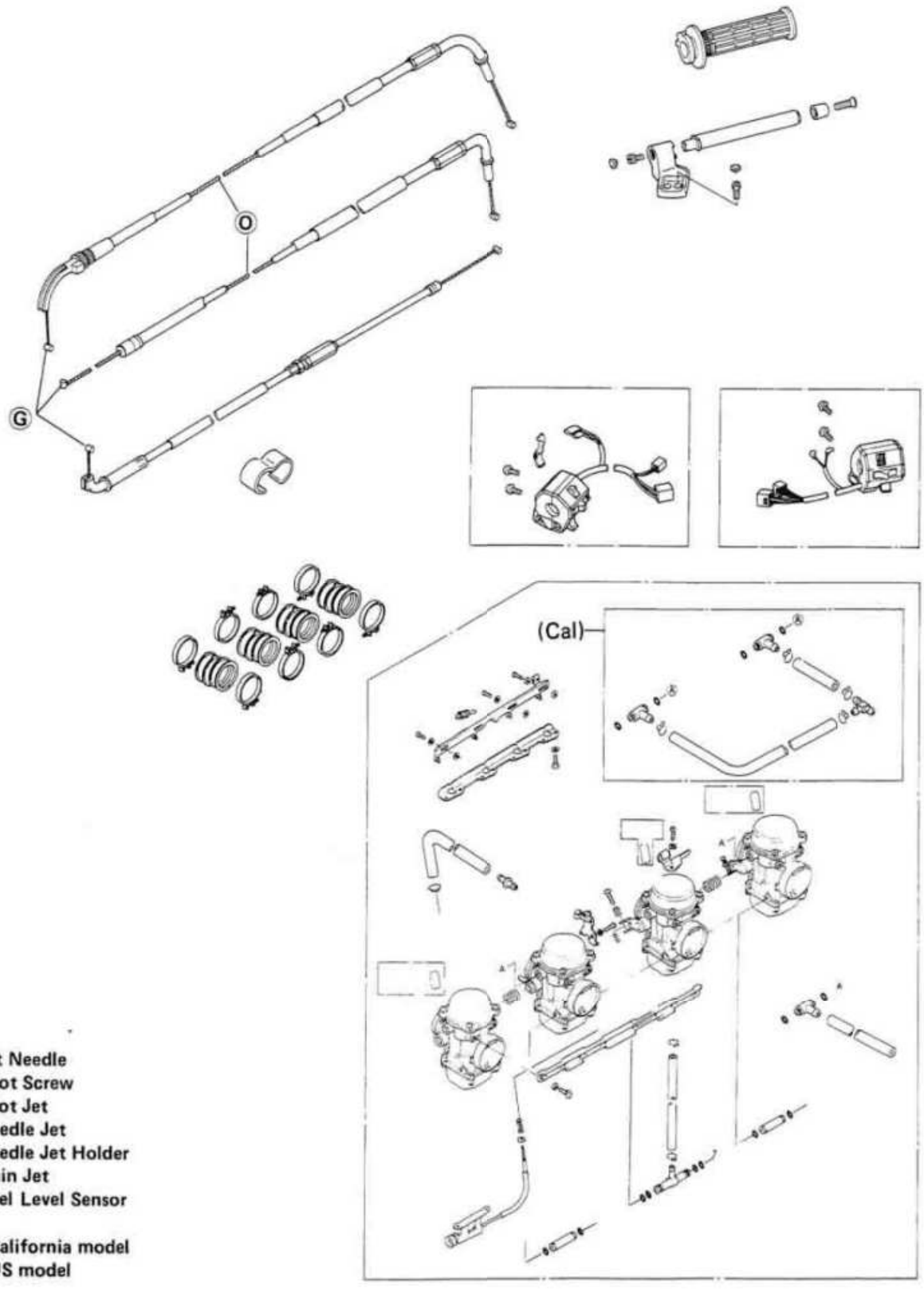
2

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  Canister Inspection ..... *
  Fuel Tank and Cap Inspection (see Fuel Tank section) ..... *
Fuel Gauge and Level Sensor (see Electrical System chapter) ..... *

* ..... Refer to Base Manual

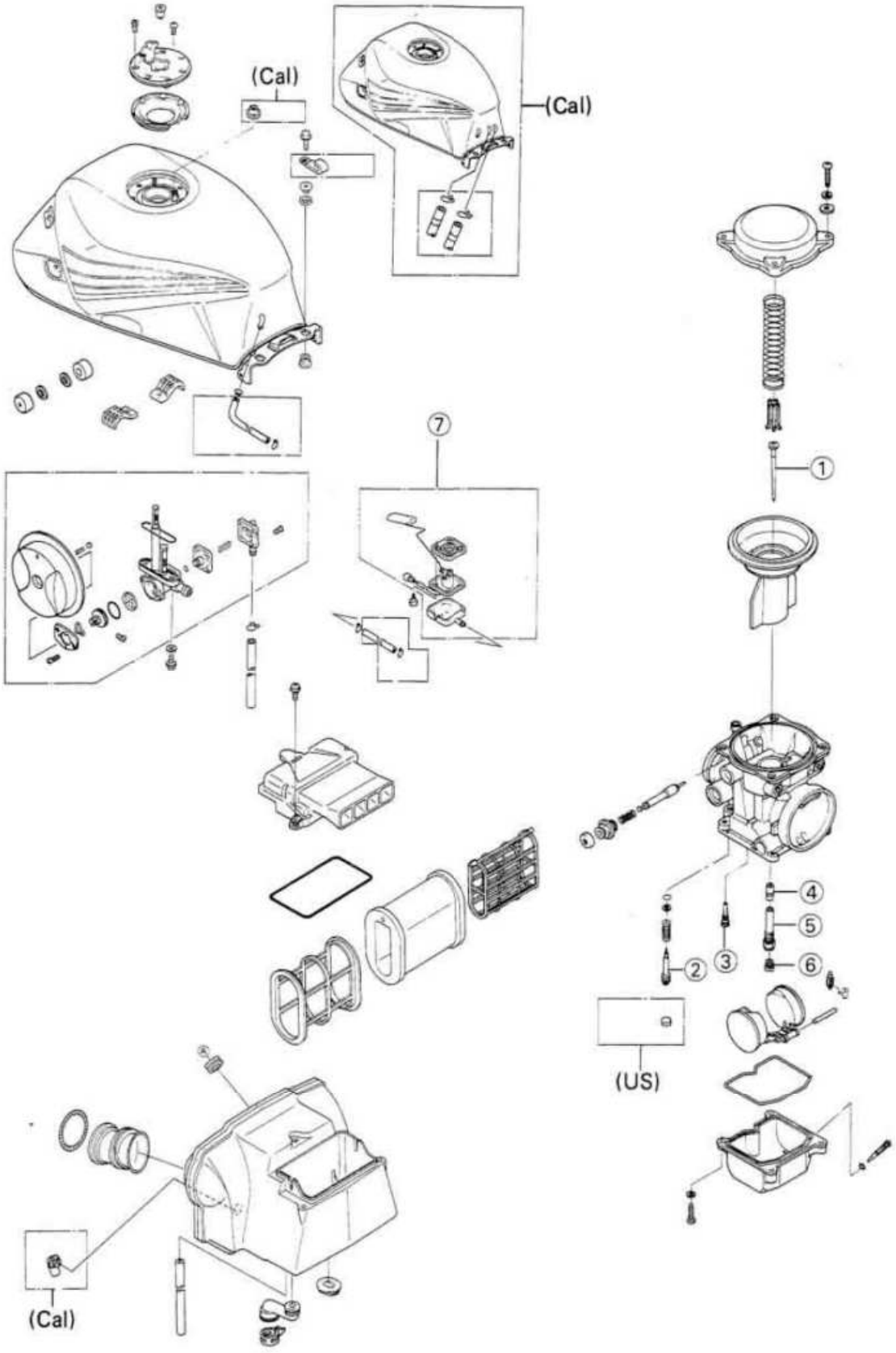
Exploded View



1. Jet Needle
2. Pilot Screw
3. Pilot Jet
4. Needle Jet
5. Needle Jet Holder
6. Main Jet
7. Fuel Level Sensor

Cal: California model
US: US model

O : Apply oil.
G : Apply grease.


(Cal)
(Cal)
7
1
2
3
4
5
6
(US)
(Cal)

Specifications

The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

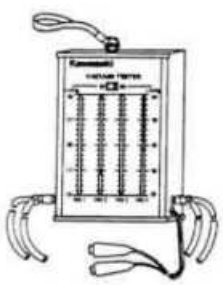
Item		ZX600-C1	ZX500-B1
Carburetor Specifications:			
Make/type		Keihin/CVK32	Keihin/CVK30
Main jet:	#1 and #4 cylinder	105, (Cal) 105	105
	#2 and #3 cylinder	105	←
Main air jet		100	←
Jet needle		N52Q, (Cal) N52T	N52P
Pilot jet		35	←
Pilot air jet		150, (Cal) 160	160
Pilot screw		2 turns out	←
		(A) 1¾ turns out	(A) 1¾ turns out
		(U) —	
		(Cal) —	
Starter jet		52, (Cal) 48	52
Service fuel level (above the bottom edge of carburetor body)		0.5 ±1 mm	←
Float height		17 mm	←
Air Cleaner:			
Air cleaner element oil:	Grade	SE or SF class	←
	Viscosity	SAE 30	←

(U) : US model
(Cal) : California model
(A) : Austrian model

Special Tools

See the Base Manual, adding the following.

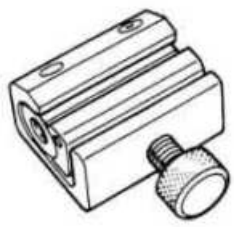
Vacuum Gauge Set: 57001-1198



Pilot Screw Adjuster: 57001-1239



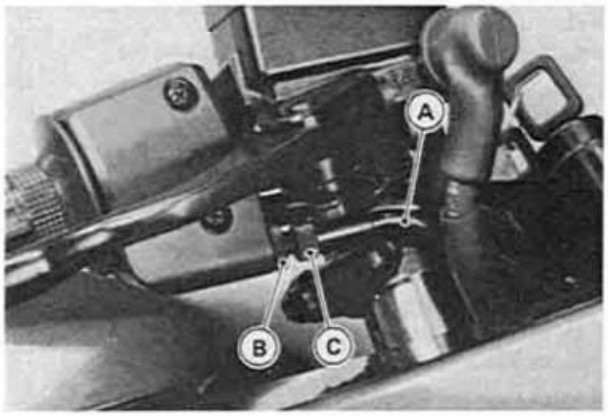
Pressure Cable Luber: K56019-021



Throttle Grip and Cables

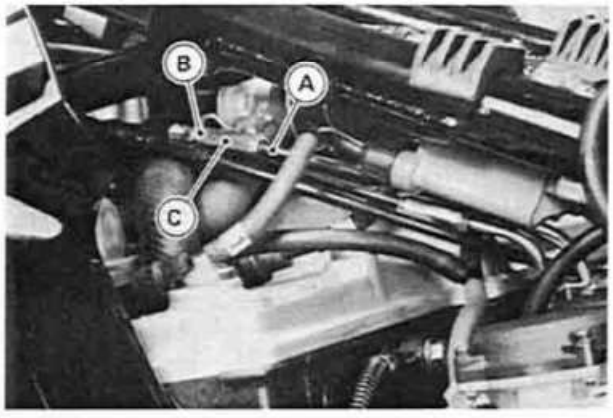
Throttle Grip Free Play Adjustment

- Loosen the locknut at the upper end of the accelerator cable.
- Turn the adjuster until the 2 – 3 mm amount of throttle grip free play is obtained.



A. Accelerator Cable
B. Locknut
C. Adjuster

- Tighten the locknut at the upper end of the cable.
- ★If the throttle grip free play can not be adjusted by using the adjuster at the upper end of the accelerator cable, use the adjuster at the lower part of the accelerator cable.
- Remove the fuel tank (see Fuel Tank Removal).
- Loosen the locknuts, and screw the adjuster in fully at the upper end of the accelerator cable to give the throttle grip plenty of free play.
- Tighten the locknut at the upper end of the cable.
- Loosen the locknut at the lower part of the accelerator cable.
- Turn the adjusting nut until the 2 – 3 mm amount of throttle grip free play is obtained.



A. Accelerator Cable
B. Locknut
C. Adjusting Nut

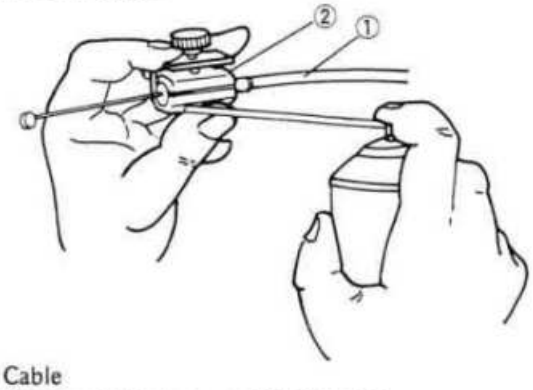
- Tighten the locknut at the lower part of the cable.
- ★If the throttle grip free play can not be adjusted by using the adjuster at the lower part of the accelerator cable, use the adjuster screwed at the upper end of the accelerator cable after tightening the locknut at the lower end of the cable.

Throttle Cable Lubrication

See the Base Manual, noting the following.

- ○Lubricate the cable with a penetrating rust inhibitor through the Pressure Cable Luber (special tool).

Cable Lubrication



1. Cable
2. Pressure Cable Luber: K56019-021

Throttle Cable Inspection

See the Base Manual, noting the following.

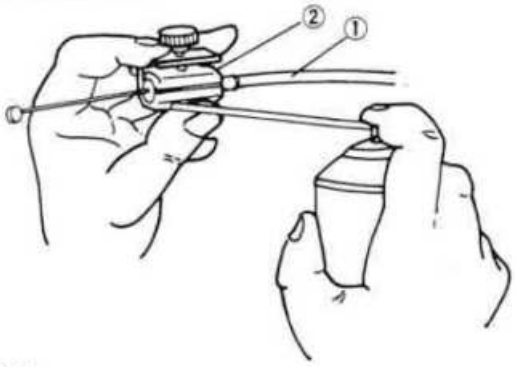
- ★If cable movement is not free after lubricating, if the cable is frayed, or if the housing is kinked, replace the cable.

Choke Cable

Choke Cable Lubrication

- ○Lubricate the cable with a penetrating rust inhibitor through the Pressure Cable Luber (special tool).

Cable Lubrication



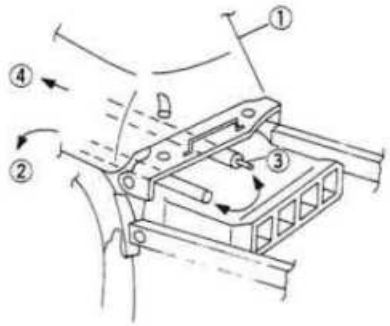
1. Cable
2. Pressure Cable Luber: K56019-021

Carburetors

Engine Starting Notes

If the carburetors float bowls are drained of gasoline due to removal or disassembly, the carburetors must be primed as follows.

- Remove the rider's seat.
- Fill the fuel tank.
- Turn the fuel tap to the RES position.
- Pull the fuel tap vacuum hose out of the connector.



1. Fuel Tank
2. To Fuel Tap
3. Connector
4. To Carburetor

- Connect a syringe to the fuel tap vacuum hose, and apply the vacuum to the hose for about twenty seconds by pulling the syringe piston fully.
- Remove the syringe, and connect the fuel tap vacuum hose to the connector.
- Pull the choke lever, and start the engine.

Idle Speed Inspection

See the Base Manual, noting the following.

○For cable routing, see Cable Routing in the General Information chapter.

Service Fuel Level Inspection

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.**

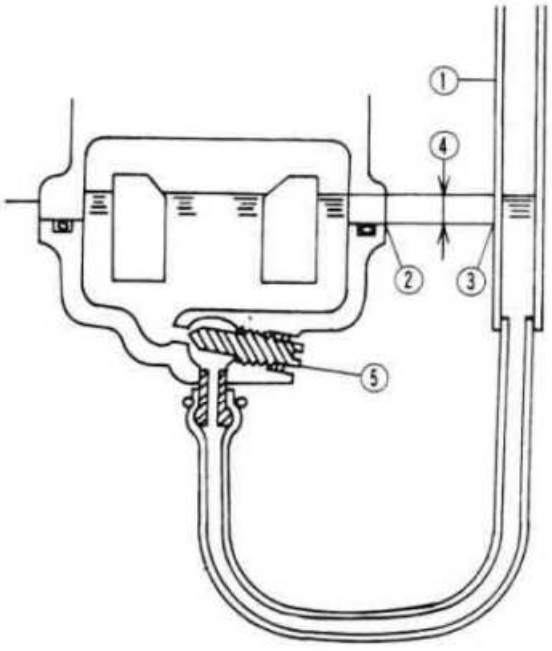
- Remove the carburetors, and hold them upright on a stand (see Carburetor Assembly Removal).
- Prepare another fuel tank which has a fuel tap with PRI position, put the fuel tank on a bench and connect the fuel tap to the carburetors using a suitable hose.
- Prepare a fuel hose (6 mm in diameter and about 300 mm long).
- Connect a fuel level gauge (special tool) to the carburetor float bowl with the fuel hose.
- Hold the gauge vertically against the side of the carburetor body so that the "zero" line is several millimeters higher than the bottom edge of the carburetor body.
- Turn the fuel tap to the PRI position to feed fuel to the carburetor, then turn out the carburetor drain plug a few turns.
- Wait until the fuel level in the gauge settles.
- Keeping the gauge vertical, slowly lower the gauge until the "zero" line is even with the bottom edge of the carburetor body.

NOTE

○*Do not lower the "zero" line below the bottom edge of the carburetor body. If the gauge is lowered and then raised again, the fuel level measured shows somewhat higher than the actual fuel level. If the gauge is lowered too far, dump the fuel out of it into suitable container and start the procedure over again.*

- Read the fuel level in the gauge compare it to the specification. Screw in the carburetor drain plug.
- Turn the fuel tap to the ON position and remove the fuel level gauge.
- Inspect the fuel level in the other carburetors in the same manner.

★If any fuel level is incorrect, adjust it (see Fuel Level Adjustment).



1. Fuel Level Gauge: 57001-1017
2. Carburetor Body Bottom Edge
3. Zero Line
4. Fuel Level
5. Drain Plug

Service Fuel Level

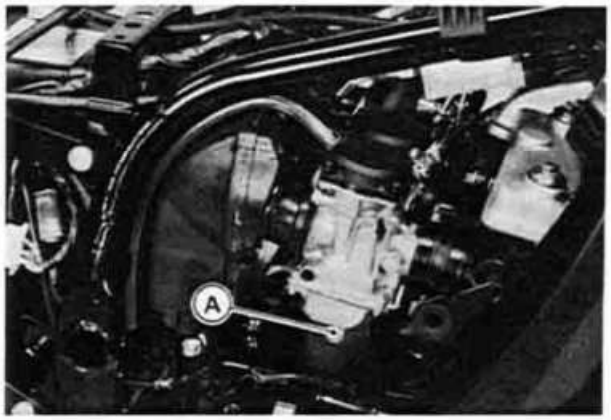
0.5 ±1 mm above the bottom edge of carburetor body

Fuel System Cleanliness Inspection

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.**

●Connect a suitable hose to the fitting at the bottom of each carburetor float bowl.
●Run the lower ends of the hoses into a suitable container.
●Turn out each drain plug a few turns and drain the float bowls.



A. Drain Plug

●Check to see if water or dirt comes out.
●Tighten the drain plugs.
★If any water or dirt appeared during the above inspection, clean the fuel system (see Carburetor Cleaning and Fuel Tank and Tap Cleaning).

Carburetor Assembly Removal

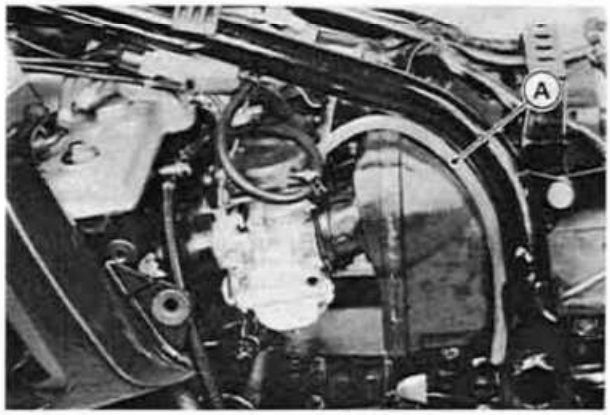
See the Base Manual, noting the following.
○Remove the side covers before removing the carburetor assembly.

NOTE

○*When removing the carburetor assembly, protect the fairing surface with a soft material so as not to damage the surface by the carburetor assembly edges.*

Carburetor Assembly Installation Notes

See the Base Manual, noting the following.
○Installation is the reverse of removal.
○When installing the carburetor assembly, protect the fairing surface with a soft material so as not to damage the surface by the carburetor assembly edges.
○Route the cables, hoses and leads according to the Cable, Hose and Wire Routing in the General Information chapter.

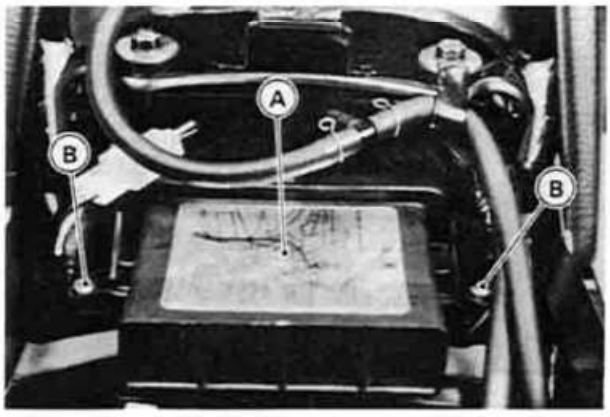


A. Breather Hoses

Air Cleaner

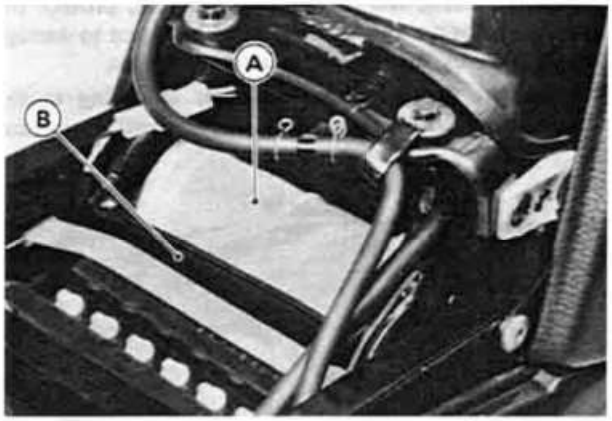
Air Cleaner Element Removal

●Remove the rider's seat.
●Remove the air cleaner cap mounting screws, and take off the cap.



A. Air Cleaner Cap B. Mounting Screws

●Take the air cleaner element out of the air cleaner housing.



A. Air Cleaner Element B. Air Cleaner Housing

WARNING

○**If dirt or dust is allowed to pass through into the carburetors, the butterfly valves may become stuck, possibly causing an accident.**

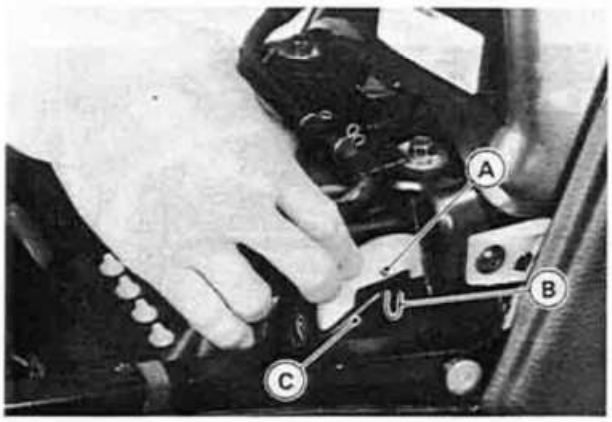
CAUTION

○**If dirt gets through into the engine, excessive engine wear and possibly engine damage will occur.**

Air Cleaner Element Installation

●Installation is the reverse of removal. Note the following.

○Fit the both ends of the element frame into the grooves of the housing.



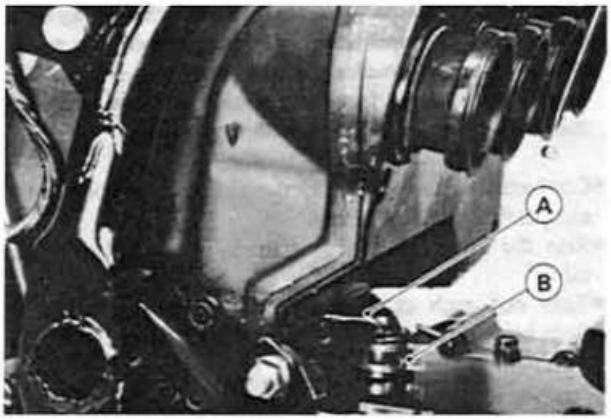
A. Frame End C. Air Cleaner Housing
B. Groove

Air Cleaner Housing Removal

●Remove the following.
Rider's Seat
Knee Grip Covers
Fuel Tank
Side Covers
Carburetor Assembly

●Remove the air cleaner cap.

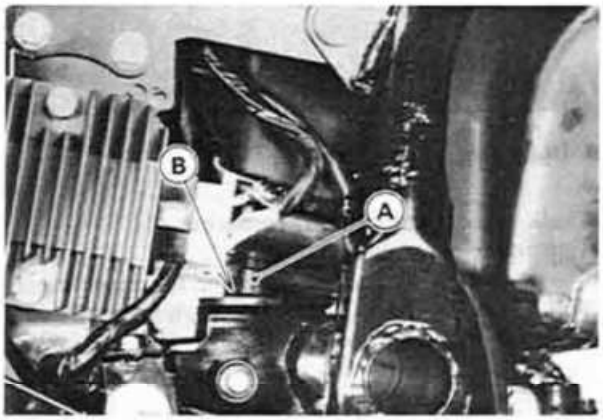
●Loosen and slide up the clamp, and pull off the engine breather hose lower end.



A. Engine Breather Hose B. Clamp

●Remove the air cleaner ducts.

●Lift up the air cleaner housing to take the boss on the bottom of housing out of the flame hole.



A. Boss B. Hole

●Push the housing forward, and take it out toward the right or left side.

Air Cleaner Housing Installation

- Installation is the reverse of removal. Note the following.
  - Fit the boss on the bottom of housing into the flame hole.
  - Route the cables, harnesses and hoses according to the Cable Routing, Wire Routing and Hose Routing in the General Information chapter.

Air Cleaner Element Cleaning and Inspection

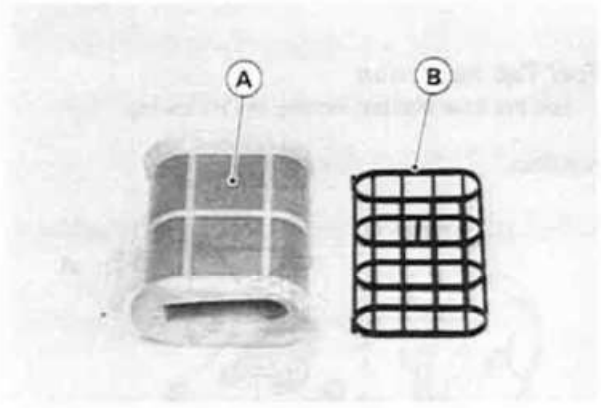
NOTE

- *In dusty areas, the element should be cleaned more frequently than the recommended interval.*
- *After riding through rain or on muddy roads, the element should be cleaned immediately.*
- *Since repeated cleaning opens the pores of the element, replace it with a new one in accordance with the Periodic Maintenance Chart. Also, if there is a break in the element material or any other damage to the element, replace the element with a new one.*

WARNING

- **Clean the element in a well-ventilated area, and take ample care that there are no sparks or flame anywhere near the working area.**
- **Because of the danger of highly flammable liquids, do not use gasoline or a low flash point solvent to clean the element.**

- Remove the air cleaner element, and separate the element from the element frame.



A. Filter B. Frame

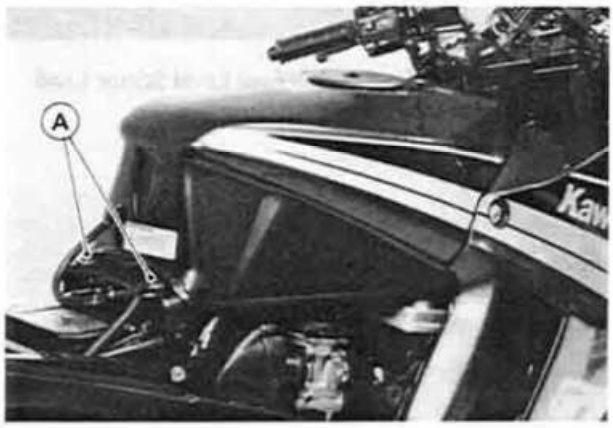
- Clean the element in a bath of a high flash-point solvent, and then dry it with compressed air or by shaking it.
- Check all the parts of the element for visible damage.
- ★If any of the parts of the element are damaged, replace them.
- After cleaning, saturate the sponge filter with SE class SAE 30 oil, squeeze out the excess, then wrap it in a clean rag and squeeze it dry as possible. Be careful not to tear the sponge filter.
- Assemble the element.
- Install the element.

Fuel Tank

Fuel Tank Removal

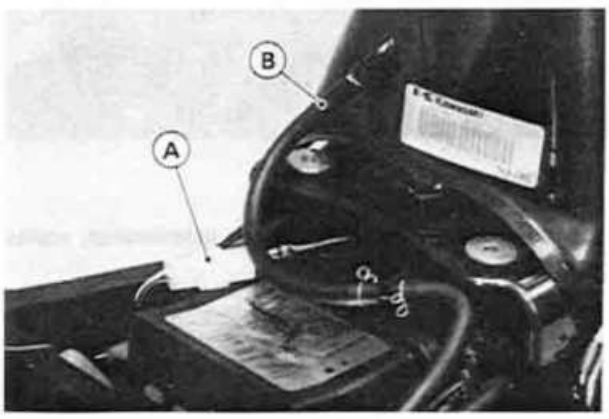
See the Base Manual, noting the following.

- Before removing the fuel tank, remove the following.
  - Rider's Seat
  - Knee Grip Covers
- Remove the fuel tank mounting bolts.



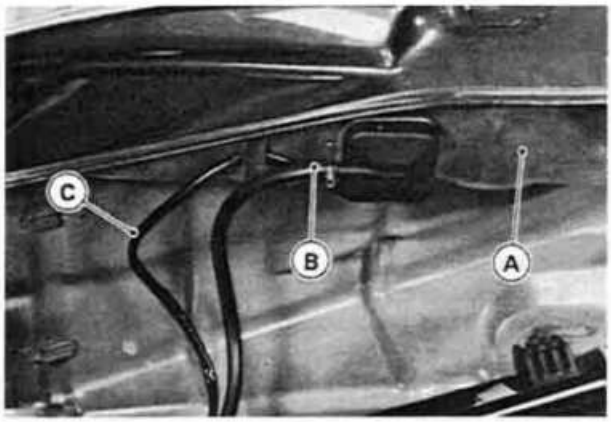
A. Mounting Bolts

- Disconnect the fuel level sensor connector.
- Pull off the breather hose.



A. Connector B. Breather Hose

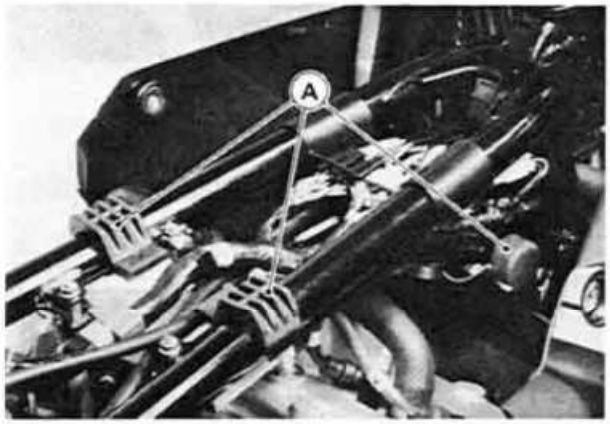
○For California vehicles, the breather and fuel return hoses must be disconnected from the tank fittings. Plug the fuel return fitting to prevent gasoline from flowing into the canister.
●Turn the fuel tap to the OFF position.
●Pull off the fuel hose and vacuum hose from the fuel tap.
●Take off the fuel tank toward the rear so as not to damage the tank surface by the upper fairing edges.
●Pull off the fuel gauge overflow drain hose from the tank bottom.



A. Fuel Tank
B. Fuel Gauge Overflow Drain Hose
C. Fuel Level Sensor Lead

Fuel Tank Installation

See the Base Manual, noting the following.
●Check the rubber dampers on the frame top-tubes.

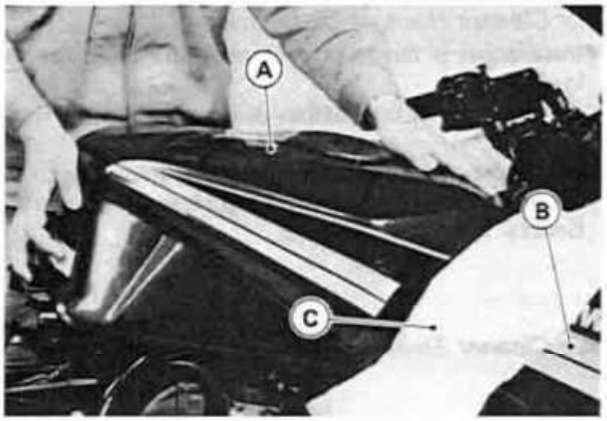


A. Dampers

★If the dampers are damaged or deteriorated, replace them.

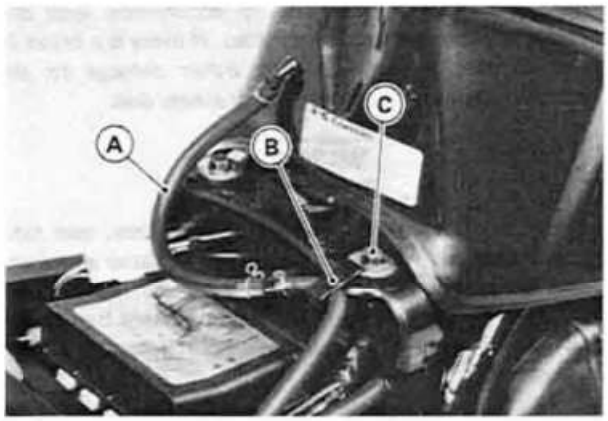
NOTE

○*When installing the fuel tank, cover the upper fairing edges with some soft meterials so as not to damage the tank surface.*



A. Fuel Tank
B. Upper Fairing
C. Soft Meterial

○Clamp the breather hose as shown.

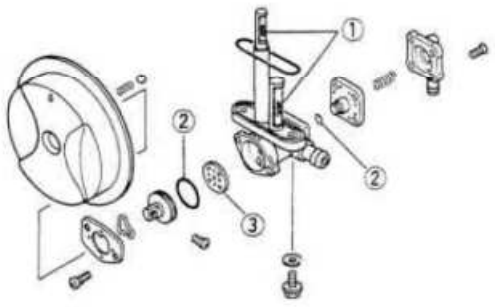


A. Breather Hose
B. Clamp
C. Mounting Bolts

Fuel Tap Inspection

See the Base Manual, noting the following.

Fuel Tap



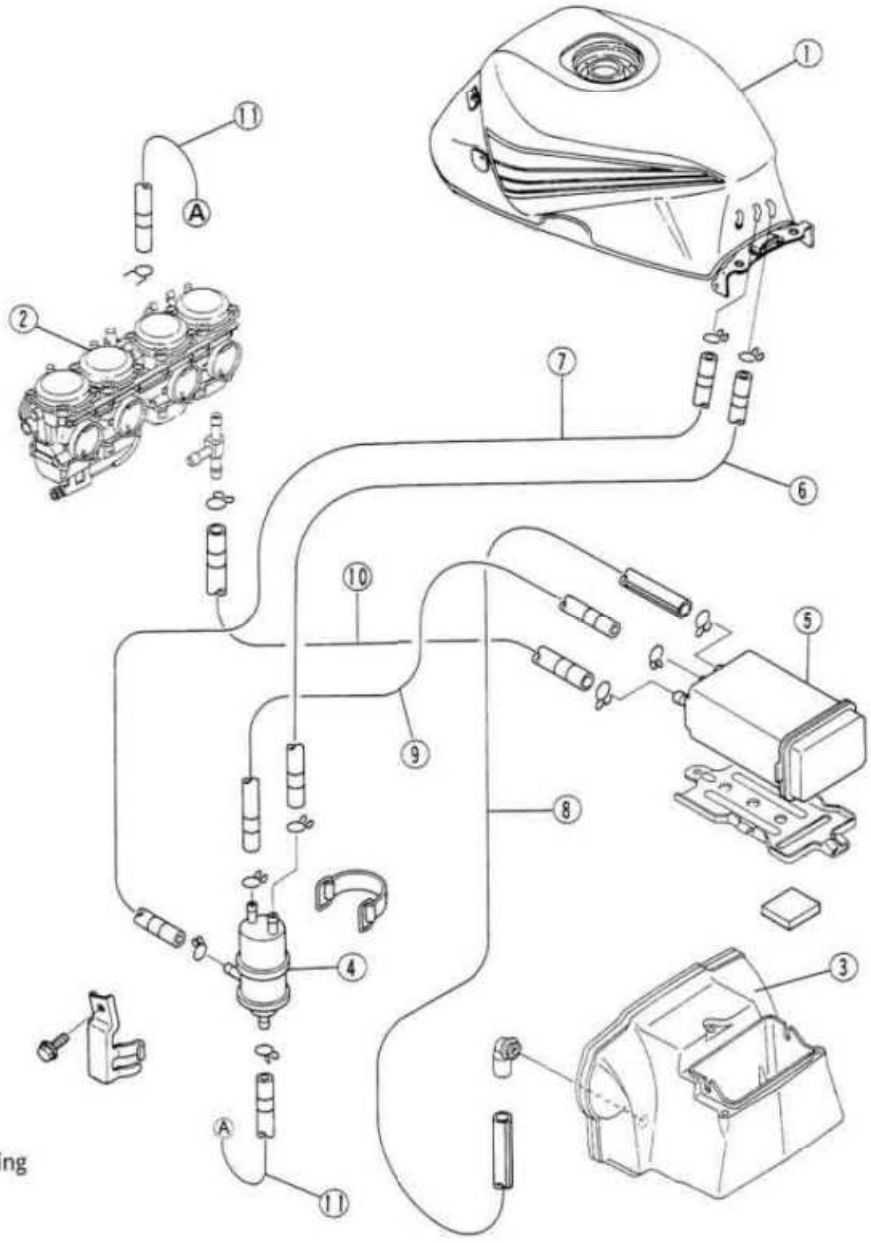
1. Filter
2. O-ring
3. Gasket

★If the fuel tap allows fuel to flow when it is OFF, replace the damaged gasket or O-ring.

Evaporative Emission Control System (US California Vehicle only)

See the Base Manual, noting the following.

Evaporative Emission Control System



1. Fuel Tank
2. Carburetor
3. Air Cleaner Housing
4. Liquid/Vapor Separator
5. Canister
6. Breather Hose (Blue)
7. Fuel Return Hose (Red)
8. Purge Hose (Green)
9. Breather Hose (Blue)
10. Breather Hose (Yellow)
11. Vacuum Hose (White)

Cooling System

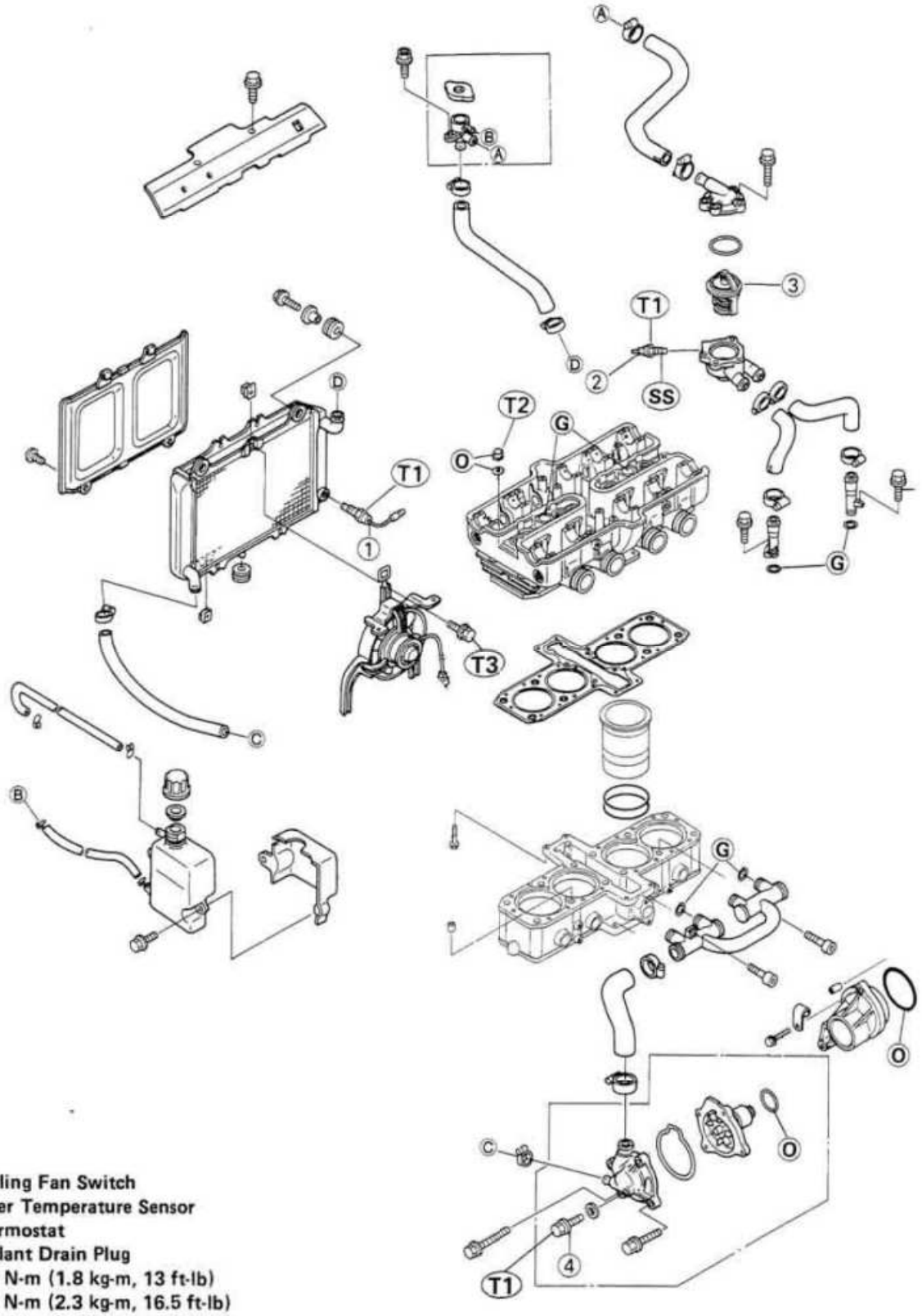
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*.....Refer to Base Manual

Exploded View



1. Cooling Fan Switch
2. Water Temperature Sensor
3. Thermostat
4. Coolant Drain Plug

T1: 18 N-m (1.8 kg-m, 13 ft-lb)
T2: 23 N-m (2.3 kg-m, 16.5 ft-lb)
T3: 3.2 N-m (0.33 kg-m, 28 in-lb)
SS: Apply silicone sealant (Kawasaki Bond: 56019-120) to the threads.
G : Apply high temperature grease.
O : Apply engine oil.

Specifications

The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

Item	Standard
Coolant Provided when Shipping:	
Total amount	2.2 L (up to H mark)
Thermostat:	
Valve opening temperature	80.5 – 83.5°C (177 – 182°F)
Valve full opening lift	not less than 8 mm @95°C (203°F)

Sealant

Kawasaki Bond (Silicone Sealant): 56019-120



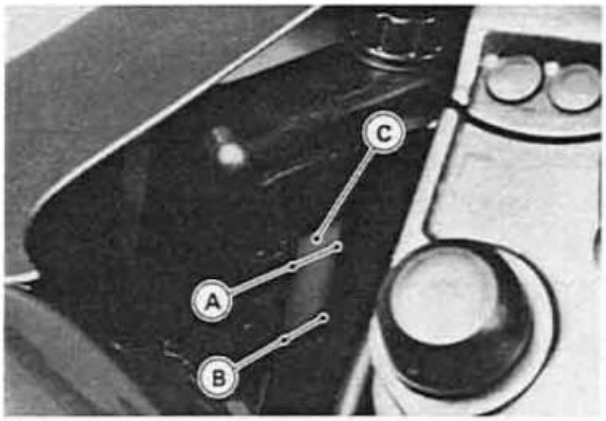
Coolant

Coolant Level Inspection

See the Base Manual, noting the following.

○Turn the handlebar to the right, and check the level through the coolant level gauge on the reservoir tank. The coolant level should be between the H and the L marks.

★If the amount of coolant is insufficient, add coolant through the filler opening to the H mark.



A. H Mark
B. L Mark
C. Reservoir Tank

Coolant Draining

See the Base Manual, noting the following.

○Set the motorcycle up on its center stand.

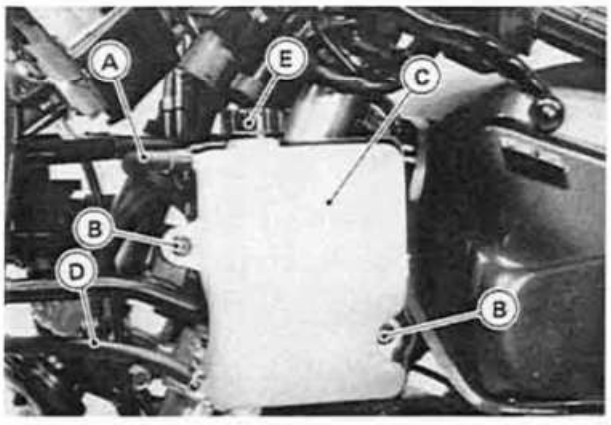
○Remove the lower fairing (see Lower Fairing Removal in the Frame chapter).

○Place a container under the water pump.

○Drain the coolant from the radiator and engine by removing the drain plug at the water pump.

○Turn the handlebar to the left, and remove the radiator cap for fast draining.

○Remove the upper fairing (see Upper Fairing Removal in the Frame chapter).



A. Air Vent Hose
B. Mounting Bolts
C. Reservoir Tank
D. Reservoir Tank Hose
E. Reservoir Tank Cap

○Pull off the air vent hose and remove the mounting bolts from the reservoir tank, and take out the tank with the reservoir tank hose attached.

○Unscrew the cap and pour the coolant into a container.

○Inspect the old coolant for visual evidence of corrosion and abnormal smell (see Coolant Deterioration).

Coolant Filling

See the Base Manual, noting the following.

○Fill the reservoir tank up to the H mark with coolant, and install the cap.

Coolant Provided when Shipping

Total amount : 2.2 L (up to H mark)

Air Bleeding

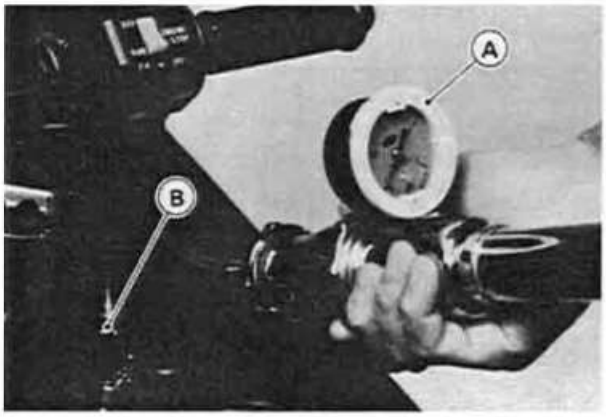
See the Base Manual, noting the following.

★If the coolant level is low, add coolant up to the H mark through the reservoir tank opening.

Cooling System Pressure Testing

See the Base Manual, noting the following.

○Turn the handlebar to the left, and install the pressure tester.



A. Pressure Tester
B. Adapter

Water Pump

Pump Cover Removal

See the Base Manual, noting the following.

○Drain the coolant (see Coolant Draining).

Pump Cover Installation Note

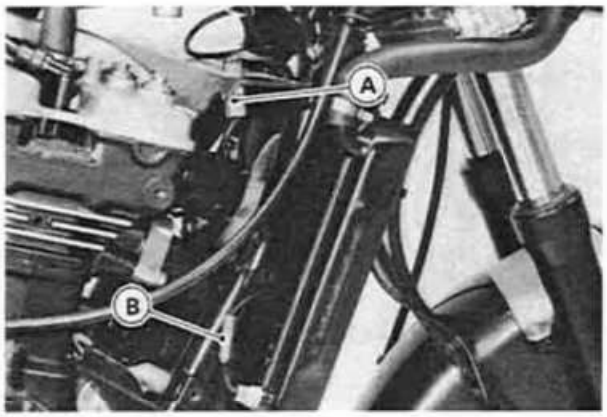
See the Base Manual, noting the following.

○Fill the cooling system (see Coolant Filling).

Radiator, Radiator Fan

Radiator, Radiator Fan Removal

- Remove the following.
  - Rider's Seat
  - Knee Grip Covers
  - Fuel Tank
  - Lower Fairing
  - Upper Fairing
- Drain the coolant.
- Disconnect the following.
  - Fan Motor Lead Connector
  - Fan Switch Lead Connector

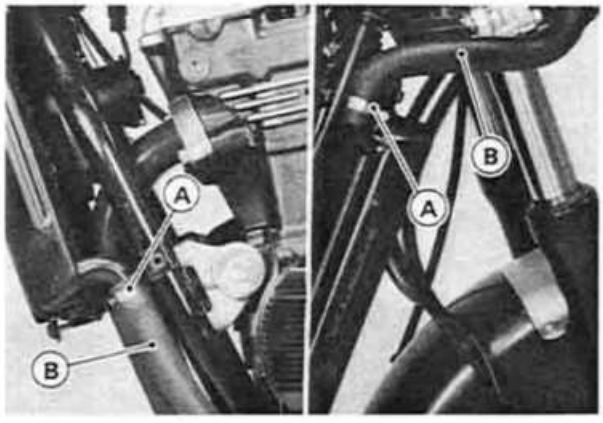


A. Fan Motor Lead Connector
B. Fan Switch Lead Connector

WARNING

○The radiator fan and fan switch are connected directly to the battery. The radiator fan may start even if the ignition switch is off. NEVER TOUCH THE RADIATOR FAN UNTIL THE ENGINE COMPLETELY COOLS OFF. TOUCHING THE FAN BEFORE THE ENGINE COOLS COULD CAUSE INJURY FROM THE FAN BLADES.

- Loosen the hose clamps and pull off the radiator hoses on both sides.



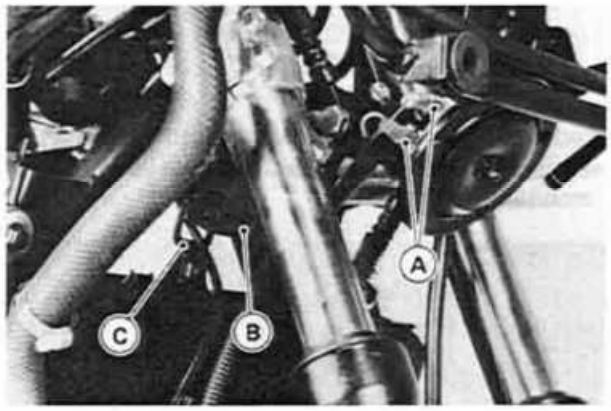
A. Clamp B. Radiator Hose

- Remove the baffle plate mounting bolts.



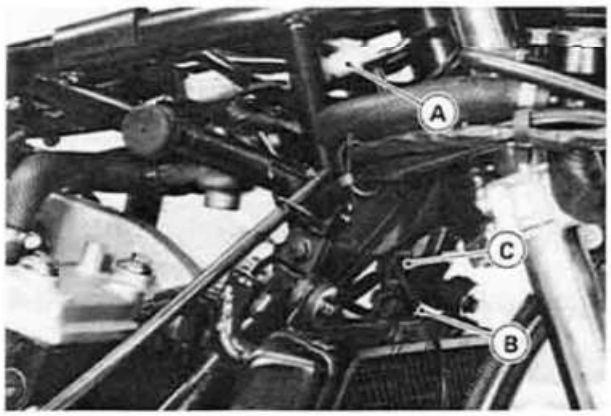
A. Mounting Bolts B. Buffle Plate

- Disconnect the horn connectors, and pull the horn lead out of the guide on the radiator.



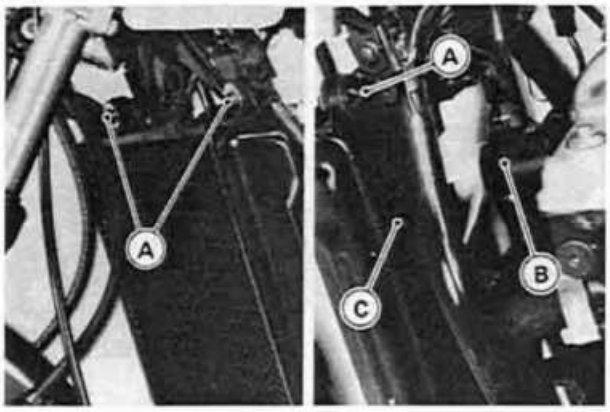
A. Horn Connectors C. Lead Guide
B. Horn Lead

- Disconnect the ESCS lead connector, and pull the ESCS lead out of the guide on the radiator.



A. ESCS Lead Connector C. Lead Guide
B. ESCS Lead

- Remove the radiator mounting bolts
- Remove the radiator with the fan taking care not to damage the radiator core.

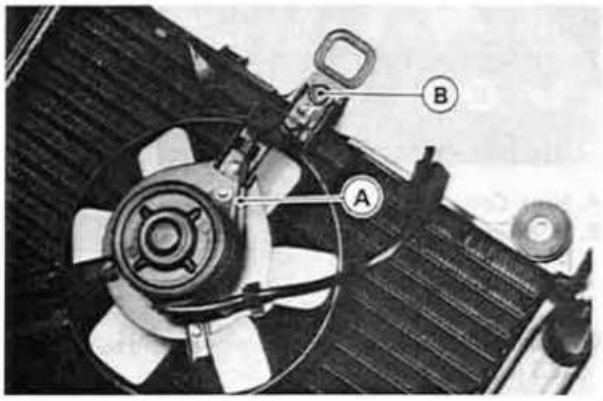


A. Mounting Bolts
B. Radiator Fan
C. Radiator Core

- Separate the radiator fan and grill from the radiator.

Radiator, Radiator Fan Installation Notes

- Be sure to install the fan switch ground lead on the fan mounting bolt.

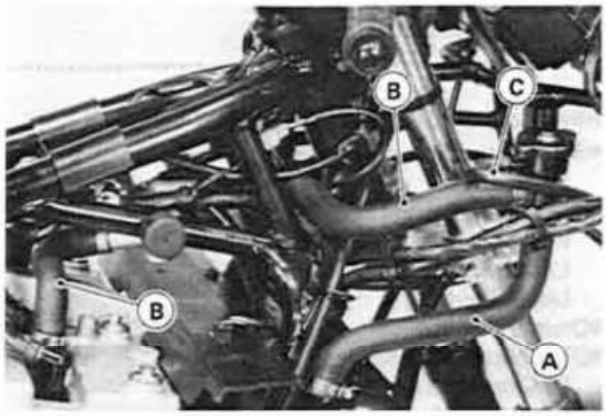


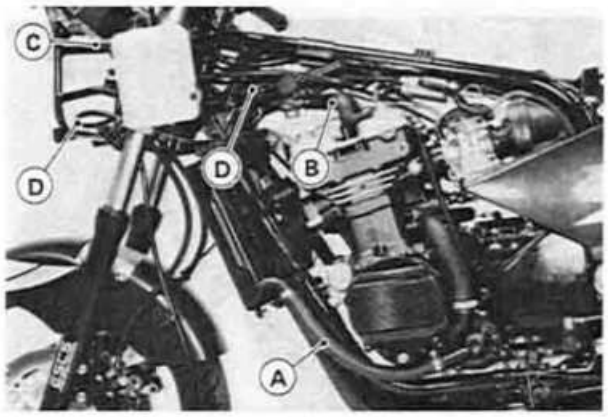
A. Ground Lead
B. Mounting Bolt

- Route the ESCS lead and horn through the guide on the radiator (see Wire Routing in the General Information chapter).

Radiator Hoses, Reservoir Tank Hoses Installation Notes

- Install the radiator hose, water hose, reservoir tank hose and air vent hose (see Exploded View, Hose Routing in the General Information chapter). Avoid sharp bending, kinking, flattening, or twisting.
- Tighten the hose clamps securely.



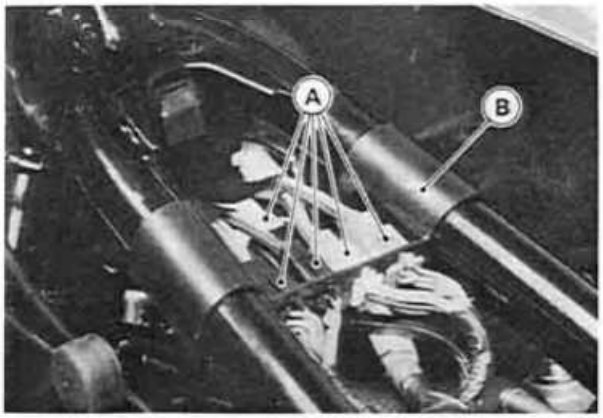


A. Radiator Hose
B. Water Hose
C. Reservoir Tank Hose
D. Air Vent Hose

Thermostat

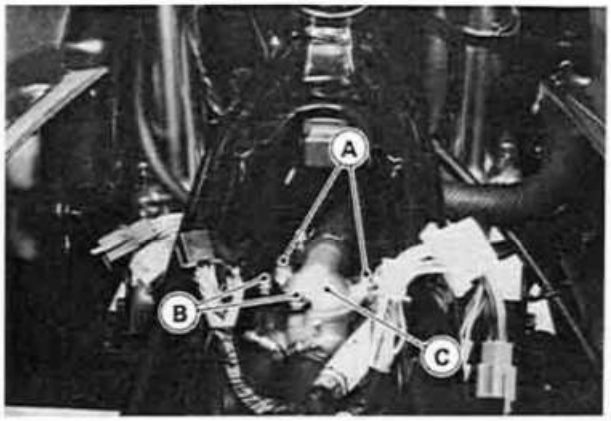
Thermostat Removal

- Remove the following.
  - Rider's Seat
  - Knee Grip Covers
  - Fuel Tank
- Disconnect the harness connectors, and take off the harness bracket.



A. Harness Connectors
B. Harness Bracket

- Remove the thermostat cover bolts.
- Remove the thermostat housing mounting bolts, and lift off the cover.



A. Cover Bolts
B. Housing Mounting Bolts
C. Cover

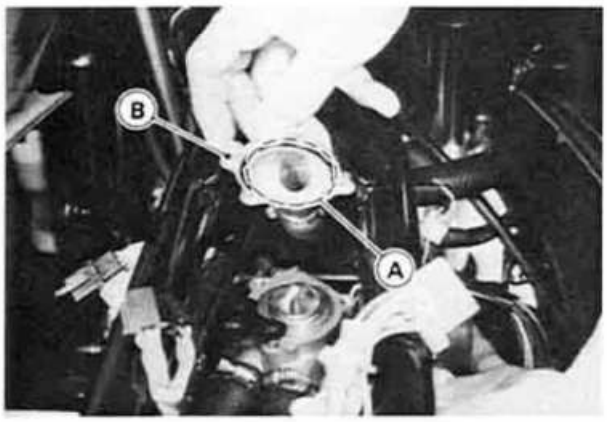
- Take the thermostat out of the housing.



A. Thermostat

Thermostat Installation Notes

- Be sure to install the thermostat housing O-ring onto the thermostat cover.

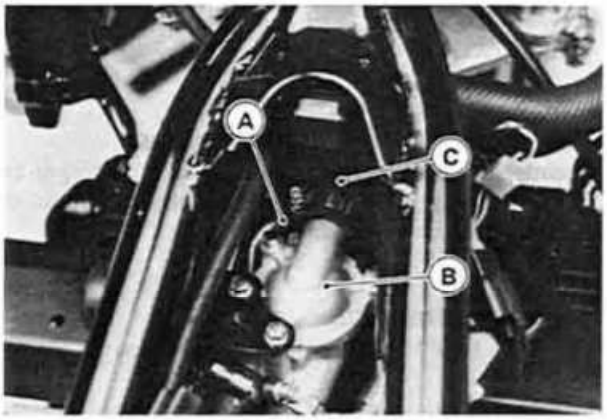


A. O-Ring
B. Thermostat Cover

- Route the harness leads according to the Wire Routing in the General Information chapter.

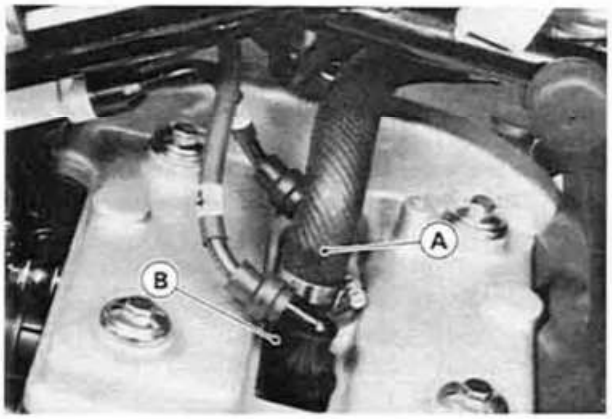
Thermostat Housing Removal

- Remove the following.
  - Rider's Seat
  - Knee Grip Covers
  - Lower Fairing
  - Upper Fairing
  - Coolant (Drain)
  - Fuel Tank
- Disconnect the harness connectors, and take off the harness bracket.
- Disconnect the water temperature sensor lead connector.



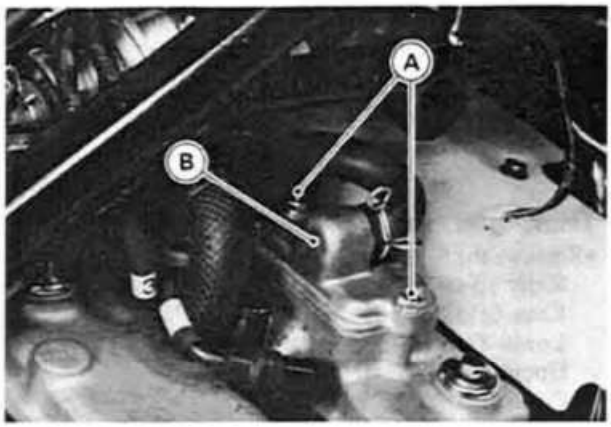
A. Water Temperature Sensor Lead Connector
B. Thermostat Housing
C. Water Hose

- Loosen the clamp, pull the water hose out of the thermostat housing outlet port.
- Loosen the clamps, pull the water hoses out of the water pipes on the cylinder head.



A. Water Hose
B. Water Pipe

- Remove the mounting bolts, and slide the right air suction valve cap out of place (US model).



A. Mounting Bolts B. Air Suction Valve Cap

- Remove the thermostat housing mounting bolts.
- Take out the thermostat housing to the right side with the water hoses.
- Loosen the clamps, and pull the hoses out of the housing.

Thermostat Housing Installation Note

- Route the cables, harnesses and hoses according to the Cable Routing, Wire Routing and Hose Routing in the General Information chapter.

Thermostat Inspection

See the Base Manual, noting the following.

Thermostat Valve Opening Temperature

80.5 – 83.5°C (177 – 182°F)

Thermostatic Fan Switch
Water Temperature Sensor

Installation Notes

- Apply silicone sealant (Kawasaki Bond: 56019-120) to the threads before installing the water temperature sensor.
- Tighten the water temperature sensor and the thermostatic fan switch to the specified torque (see Exploded View).

Engine Top End

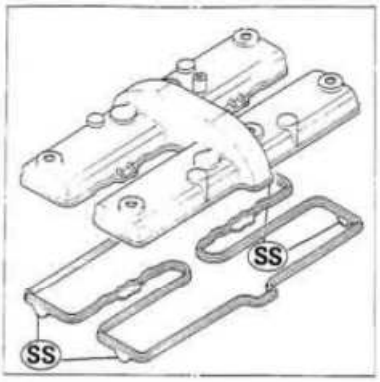
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*.....Refer to Base Manual

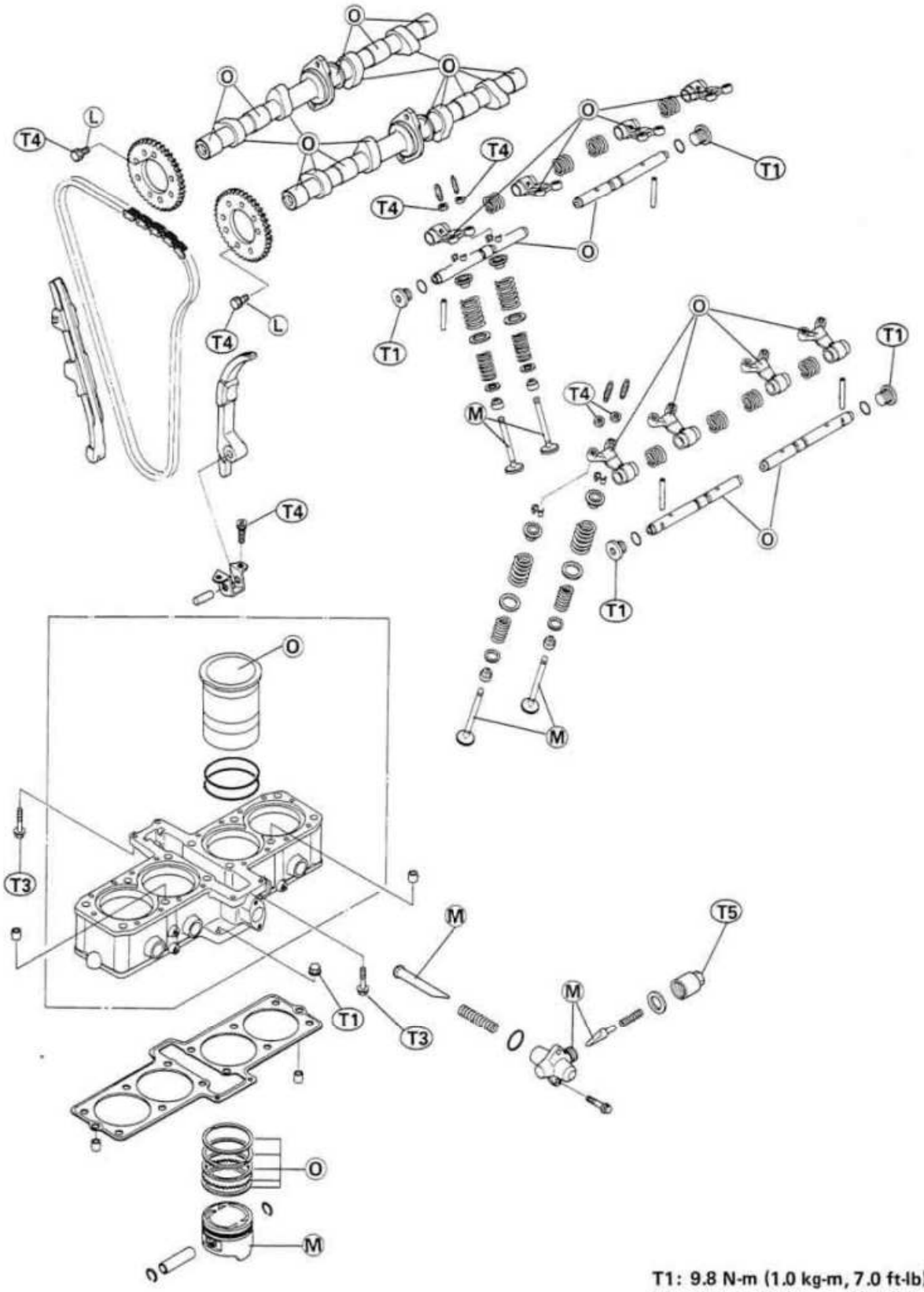
Exploded View

(Other than US model)



1. Cylinder Head Nut
2. Turn the ends of the clamp downward and tighten the clamp bolt from the rear.

SS: Apply silicone sealant (Kawasaki Bond: 56019-120) to the gaskets.
L : Apply a non-permanent locking agent to the threads.
M : Apply a thin coat of molybdenum disulfide grease.
O : Apply engine oil to the surface.



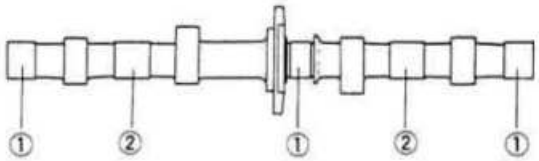
T1: 9.8 N-m (1.0 kg-m, 7.0 ft-lb)
T2: 23 N-m (2.3 kg-m, 16.5 ft-lb)
T3: 12 N-m (1.2 kg-m, 8.5 ft-lb)
T4: 15 N-m (1.5 kg-m, 11.0 ft-lb)
T5: 25 N-m (2.5 kg-m, 18.0 ft-lb)

Specifications

The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

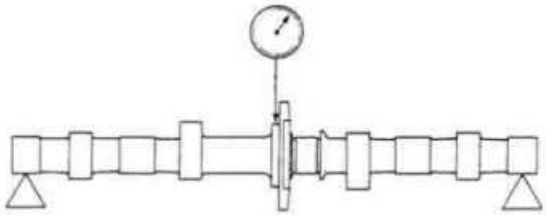
Item	Standard	Service Limit
Clean Air System (US model):		
Vacuum Switch Valve Closing Pressure:		
Open ⟶ Close	57 – 65 kPa (430 – 490 mmHg)	– – –
Camshaft, Camshaft Chain, Rocker Shaft:		
Camshaft bearing oil clearance:		
Journal A	0.028 – 0.071 mm	0.16 mm
Journal B	0.078 – 0.121 mm	0.21 mm
Camshaft journal diameter:		
Journal A	22.950 – 22.972 mm	22.92 mm
Journal B	22.900 – 22.922 mm	22.87 mm
Cylinder Head:		
	(usable range)	
Cylinder compression: ZX600C	960 – 1470 kPa (9.8 – 15.0 kg/cm², 139 – 213 psi) @640 r/min (rpm)	– – –
ZX500B	930 – 1420 kPa (9.5 – 14.5 kg/cm², 135 – 206 psi) @630 r/min (rpm)	– – –
Cylinder, Piston:		
Piston ring/groove clearance		
Second: ZX500B	0.03 – 0.07 mm	0.17 mm
Piston ring groove width		
Second: ZX600C	1.01 – 1.03 mm	1.11 mm
ZX500B	1.22 – 1.24 mm	1.32 mm
Oil: ZX600C	2.01 – 2.03 mm	2.11 mm
ZX500B	2.51 – 2.53 mm	2.61 mm
Piston ring thickness		
Second: ZX600C	0.97 – 0.99 mm	0.9 mm
ZX500B	1.17 – 1.19 mm	1.1 mm
Piston ring end gap		
Second: ZX600C	0.15 – 0.30 mm	0.6 mm
ZX500B	0.15 – 0.35 mm	0.65 mm

Camshaft Journal



1. Journal A
2. Journal B

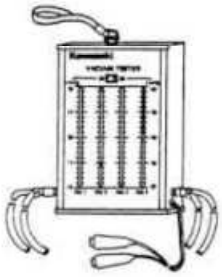
Camshaft Runout



Special Tools

See the Base Manual, replacing with or adding the following.

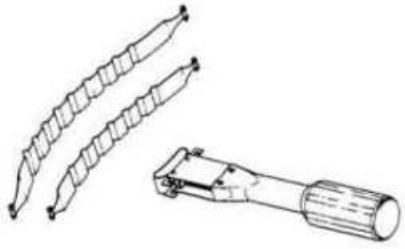
Vacuum Gauge Set: 57001-1198



Piston Base: 57001-147



Piston Ring Compressor Assy: 57001-1094



Sealant

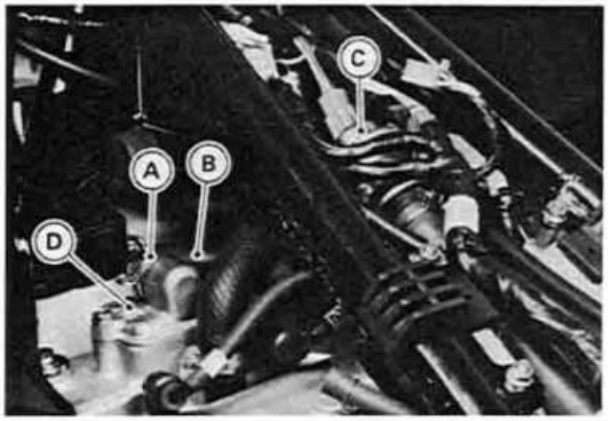
Kawasaki Bond (Silicone Sealant): 56019-120



Clean Air System (US model)

Air Suction Valve Removal

- Remove the fuel tank (see Fuel Tank Removal in the Fuel System chapter).
- Disconnect the harness connectors, and take off the harness bracket.
- Slide the clamps out of its place from the air hoses of the vacuum switch valve, and then disconnect the air hoses from the air suction valve caps.



A. Clamp
B. Air Hose
C. Vacuum Switch Valve
D. Air Suction Valve Cap

- Remove the mounting bolts, and take off the air suction valve caps and gaskets.
- Take out the air suction valves.

Air Suction Valve Installation Notes

See the Base Manual, noting the following.

- Route the cables, harness and hoses according to the Cable Routing, Wire Routing and Hose Routing in the General Information chapter.

Vacuum Switch Valve Test

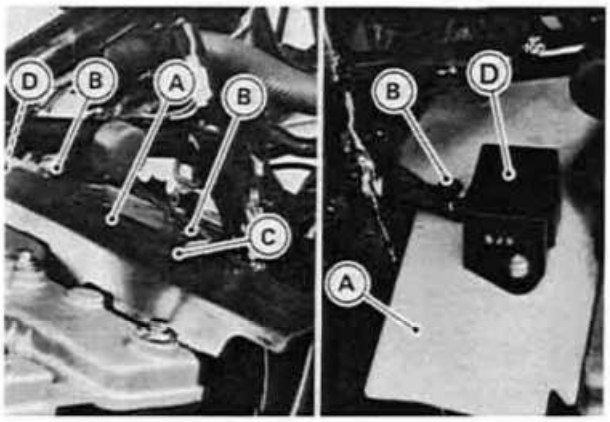
See the Base manual, noting the following.

- Gradually raise the vacuum (lower the pressure) applied to the vacuum switch valve, and check the valve operation. When the vacuum is low the vacuum switch valve should permit air to flow. When the vacuum rises a certain level 57 ~ 65 kPa (430 ~ 490 mmHg), it should stop air flow. When the vacuum is high enough, the air cannot flow through the valve.

Cylinder Head Cover

Cylinder Head Cover Removal

- Remove the following.
  - Rider's Seat
  - Knee Grip Covers
  - Lower Fairing
  - Upper Fairing
  - Coolant (Drain)
  - Fuel Tank
  - Thermostat Housing
  - Air Suction Valve and Vacuum Switch Valve (US model only)
  - Ignition Coils
  - Water Pipes
  - Baffle Plate



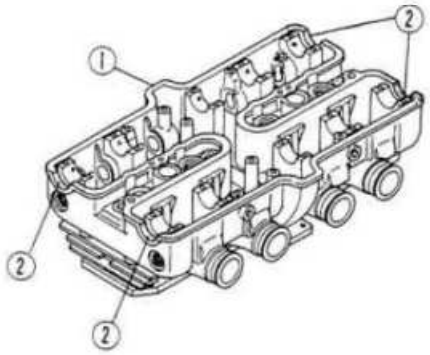
A. Baffle Plate
B. Mounting Bolts
C. Fan Motor Lead Connector
D. Reserve Lighting Device (US, Canadian model only)

- Remove the cylinder head cover bolts, and take off the cover.

Cylinder Head Cover Installation Notes

See the Base Manual, noting the following.

- Apply silicone sealant (Kawasaki Bond: 56019-120) to the cylinder head as shown.



1. Cylinder Head
2. Silicone Sealant Applied Area.

Camshaft, Camshaft Chain, Rocker Shaft

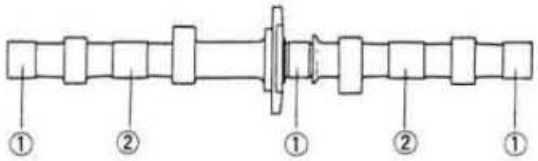
Camshaft Oil Clearance Inspection

See the Base Manual, noting the following.

Camshaft Bearing Oil Clearance

	Standard	Service Limit
Journal A	**0.028 – 0.071 mm**	**0.16 mm**
Journal B	**0.078 – 0.121 mm**	**0.21 mm**

Camshaft Journal



1. Journal A 2. Journal B

Cylinder Head

Compression Measurement

See the Base Manual, noting the following.

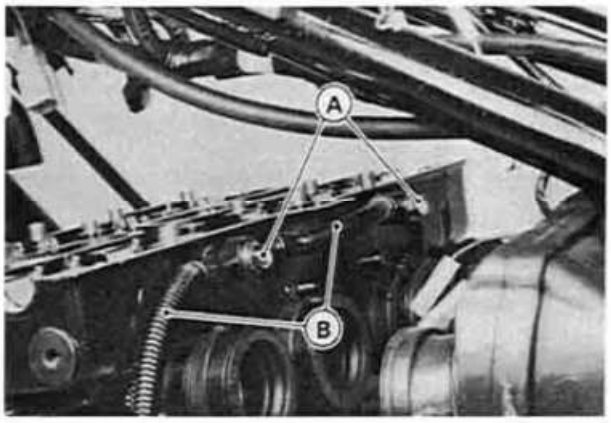
Cylinder Compression (Usable Range)

ZX600C	**960 – 1,470 kPa (9.8 – 15.0 kg/cm², 139 – 213 psi) @640 r/min (rpm)**
ZX500B	**930 – 1,420 kPa (9.5 – 14.5 kg/cm², 135 – 206 psi) @630 r/min (rpm)**

Cylinder Head Removal

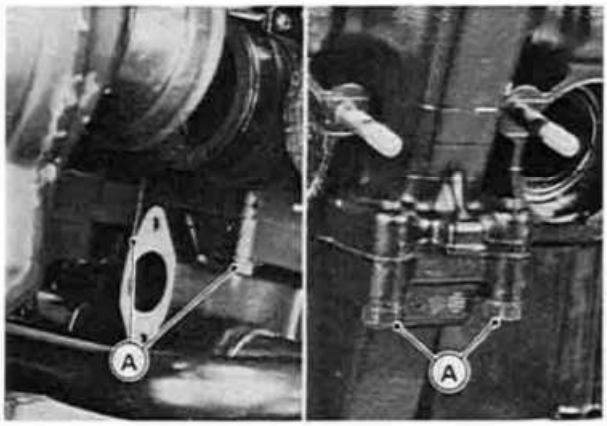
●Remove the following.
Rider's Seat
Knee Grip Covers
Lower Fairing
Upper Fairing
Coolant (Drain)
Fuel Tank
Side Covers
Carburetor Assembly
Thermostat Housing
Air Suction Valve and Vacuum Switch Valve (US model only)
Ignition Coils
Water Pipes
Baffle Plate
Radiator with Radiator Fan
Muffler
Cylinder Head Cover
Camshaft Chain Tensioner
Camshafts

●Remove the oil hose banjo bolts.

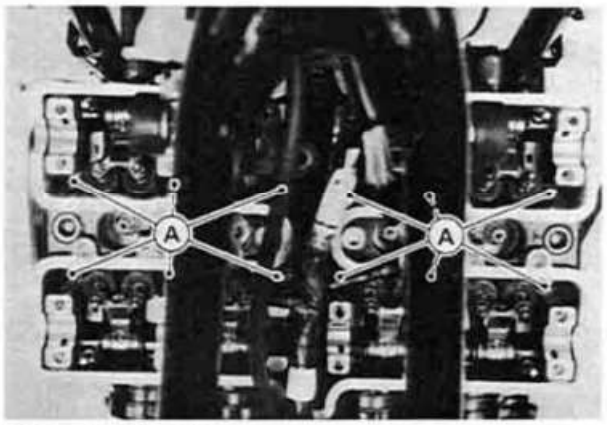


A. Banjo Bolts B. Oil Hose

●Remove the cylinder head bolts and nuts.



A. Cylinder Head Bolts



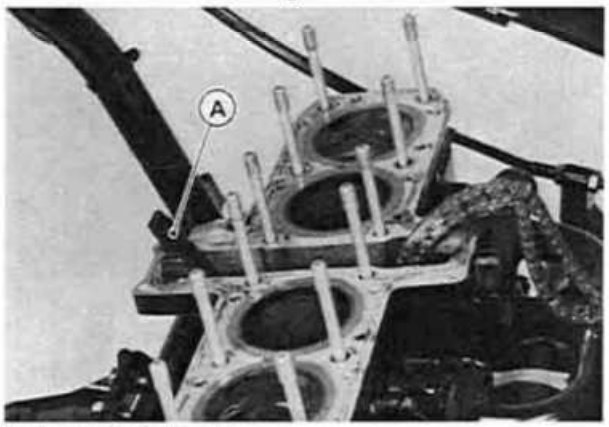
A. Cylinder Head Nuts

●Pull off the cylinder head, and remove the cylinder head gasket.

Cylinder, Piston

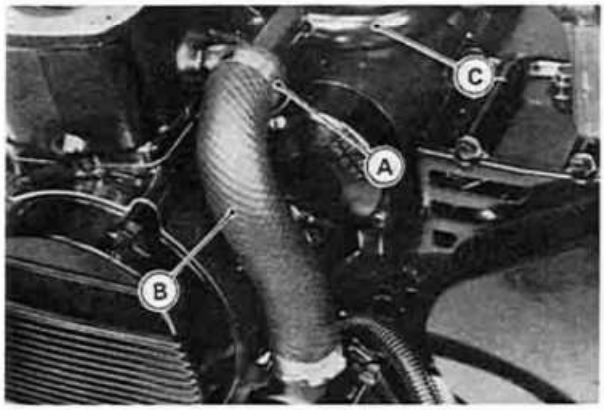
Cylinder Removal

•Position the Crankshaft at TDC for the #1 and #4 pistons.
•Remove the following.
Rider's Seat
Knee Grip Covers
Lower Fairing
Upper Fairing
Coolant (Drain)
Fuel Tank
Side Covers
Carburetor Assembly
Thermostat Housing
Air Suction Valve and Vacuum Switch Valve (US model only)
Ignition Coils
Water Pipes
Baffle Plate
Radiator with Radiator Fan
Muffler
Cylinder Head Cover
Camshaft Chain Tensioner
Camshafts
Cylinder Head
•Take out the front chain guide.



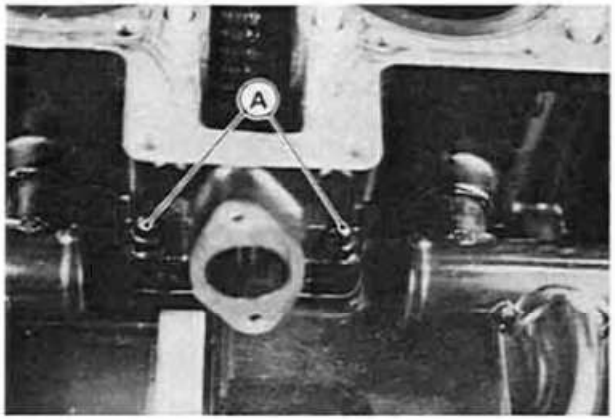
A. Front Chain Guide

•Loosen the clamp, and pull the water pump hose upper end out of the water pipe.



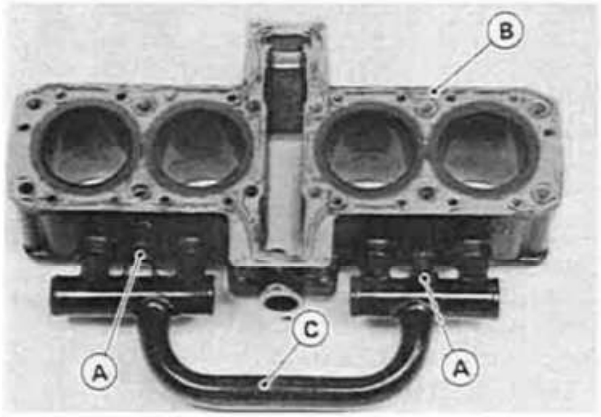
A. Clamp
B. Water Pump Hose
C. Water Pipe

•Remove the cylinder nuts.



A. Cylinder Nuts

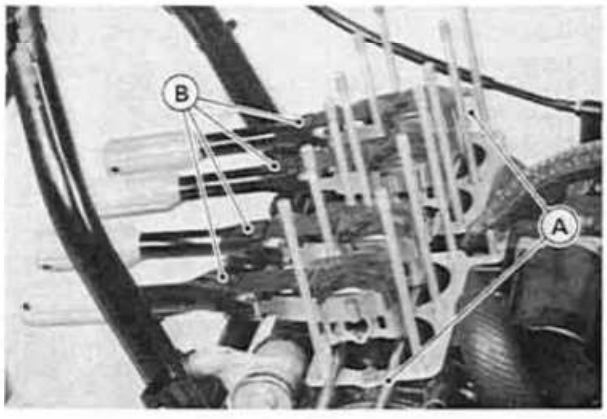
•Take off the cylinder with the water pipe, and remove the cylinder base gasket.
•Separate the water pipe from the cylinder.



A. Mounting Allen Bolt
B. Cylinder
C. Water Pipe

Cylinder Installation Notes

See the Base Manual, noting the following.
○Slip the piston bases (special tools) under the pistons to hold them level.
○Compress the piston rings using the piston ring compressor assy (special tool).



A. Piston Base: 57001-147
B. Piston Ring Compressor Assy: 57001-1094

Piston Ring, Piston Ring Groove Wear

See the Base Manual, noting the following.

Piston Ring/Groove Clearance

Second Ring (ZX500B)

Standard:	**0.03 – 0.07 mm**
Service Limit:	**0.17 mm**

Piston Ring End Gap

See the Base Manual, noting the following.

Piston Ring End Gap

Second Ring (ZX600C)

Standard:	**0.15 – 0.30 mm**
Service Limit:	**0.6 mm**

Second Ring (ZX500B)

Standard:	**0.15 – 0.35 mm**
Service Limit:	**0.65 mm**

Muffler

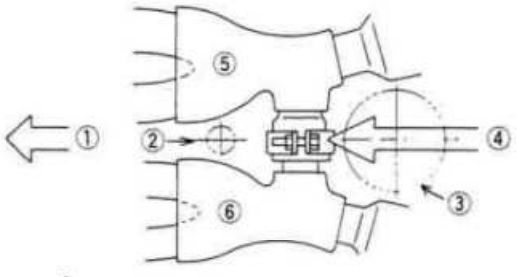
Muffler Installation Notes

See the Base Manual, noting the following.

○Replace the muffler connecting pipe gasket with a new one, if necessary.

NOTE

○*When installing the muffler connecting pipe clamp, turn the ends of the clamp downward and tighten the clamp bolt from the rear.*



1. Front
2. Engine Oil Drain Plug
3. Oil Filter
4. Tighten from the rear.
5. Left Side
6. Right Side

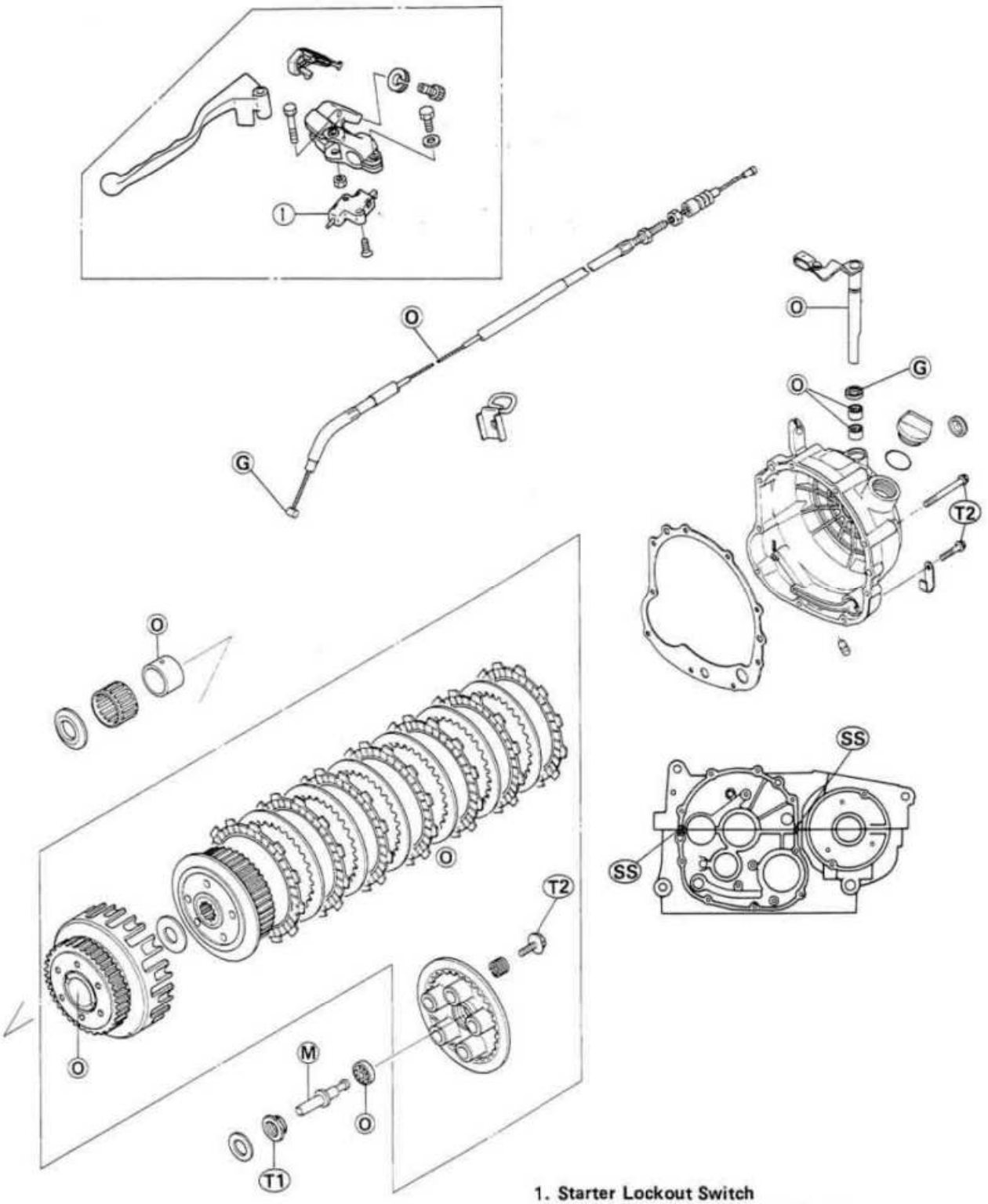
Clutch

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- Clutch Spring Free Length Measurement ..... *
- Clutch Housing Finger Inspection ..... *
- Clutch Hub Spline Inspection ..... *

*.....Refer to Base Manual

Exploded View



1. Starter Lockout Switch
M : Apply molybdenum disulfide grease.
G : Apply high temperature grease.
O : Apply engine oil.
SS : Apply silicone sealant (Kawasaki Bond: 56019-120)
T1: 130 N-m (13.5 kg-m, 98 ft-lb)
T2: 8.8 N-m (0.9 kg-m, 78 in-lb)

Special Tool

Along with common hand tools, the following more specialized tool is required for complete clutch servicing.

Clutch Holder: 57001-1243



Sealant

Kawasaki Bond (Silicone Sealant): 56019-120



Clutch

Clutch Adjustment

See the Base Manual, noting the following.

○This model has no rear fairing stay.

Clutch Release Lever Removal

See the Base Manual, noting the following.

○This model has no rear fairing stay.

CAUTION

○Do not remove the clutch release shaft unless it is absolutely necessary. If removed, you must replace the oil seal with a new one.

Clutch Release Lever Installation Notes

See the Base Manual, noting the following.

CAUTION

○Install a new oil seal always when removing the clutch release shaft.

○Apply high temperature grease to the oil seal lips on the upper ride of the clutch cover.

○Apply oil to the bearings in the hole of the clutch cover.

○Apply oil to the release shaft.

CAUTION

○When inserting the release shaft, be careful not to remove the spring of the oil seal.

Clutch Cover Removal

See the Base Manual, noting the following.

○There is no necessity for removing the lower fairing.

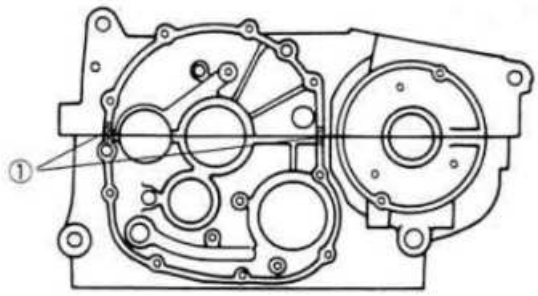
CAUTION

○Do not remove the clutch release shaft for clutch cover removal. Cover release shaft removal damages the oil seal in the clutch cover necessitating oil seal replacement.

Clutch Cover Installation Notes

See the Base Manual, noting the following.

○Apply silicone sealant (sealant) to the mating surface as shown.



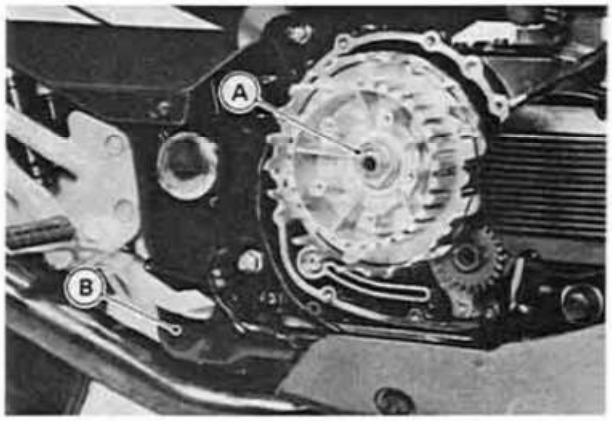
1. Silicone Sealant (Kawasaki Bond: 56019-120)

○Tighten the clutch cover bolts to the specified torque (see Exploded View).

Clutch Removal

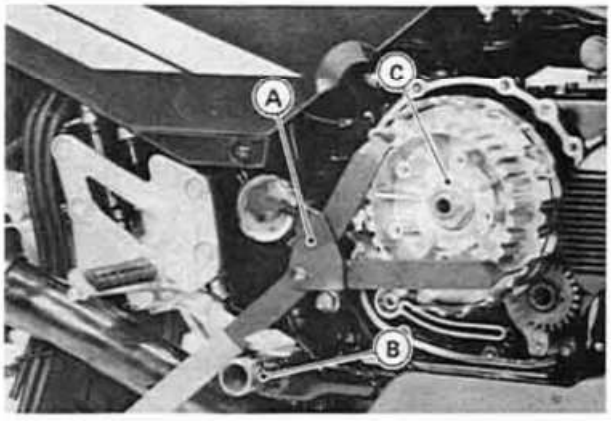
See the Base Manual, noting the following.

○Before loosening the hub nut, remove the frame pipe cap and insert a suitable steel pipe into the hole as a stopper for the special tool.



A. Hub Nut B. Frame Pipe Cap

○When loosening the hub nut, use the clutch holder (special tool) to keep the clutch hub from turning.

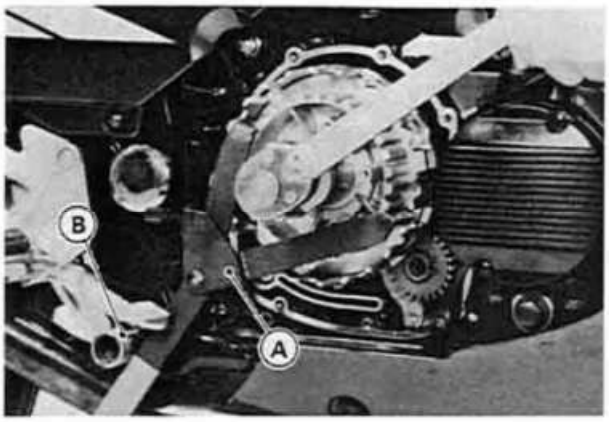


A. Clutch Holder: 57001-1243
B. Stopper (Suitable Steel Pipe)
C. Hub Nut

Clutch Installation Notes

See the Base Manual, noting the following.

○When tightening the hub nut, use the clutch holder (special tool) to keep the clutch hub from turning.



A. Clutch Holder: 57001-1243
B. Stopper (Suitable Steep Pipe)

Engine Lubrication System

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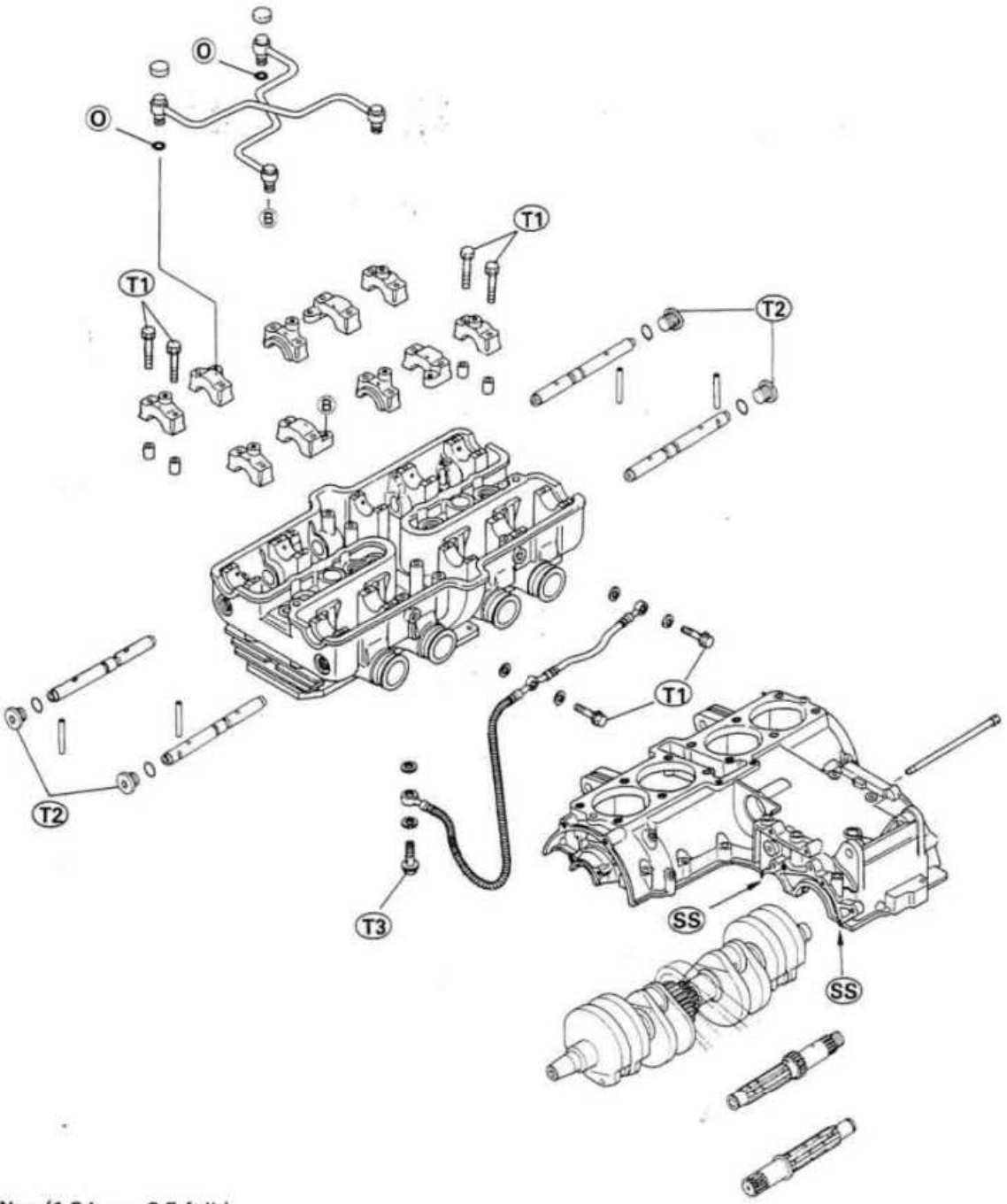
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- Relief Valve Installation Note ..... *
- Oil Pan Installation Notes ..... *

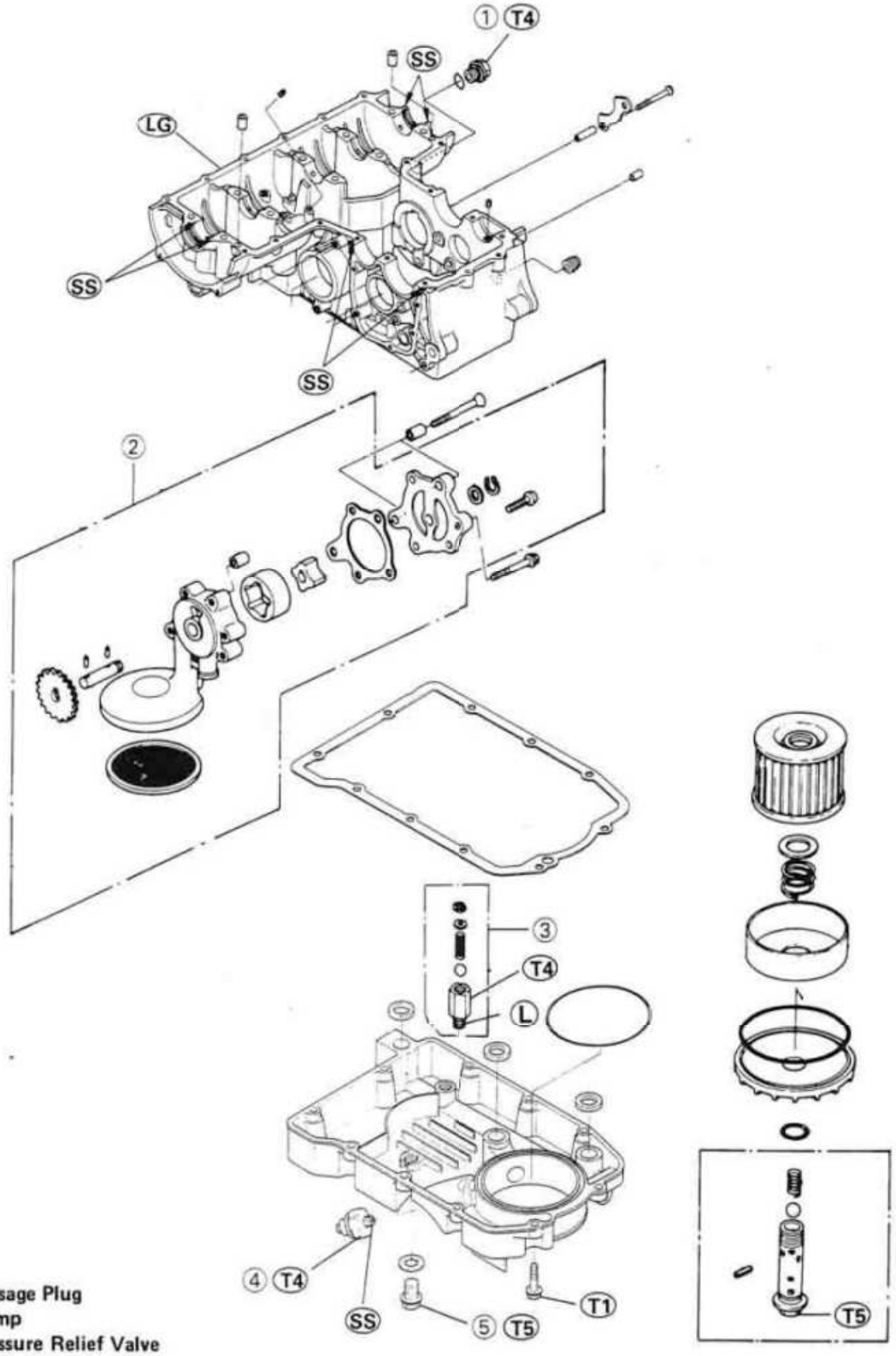
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- Oil Pump Installation Notes ..... *
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*.....Refer to Base Manual

Exploded View

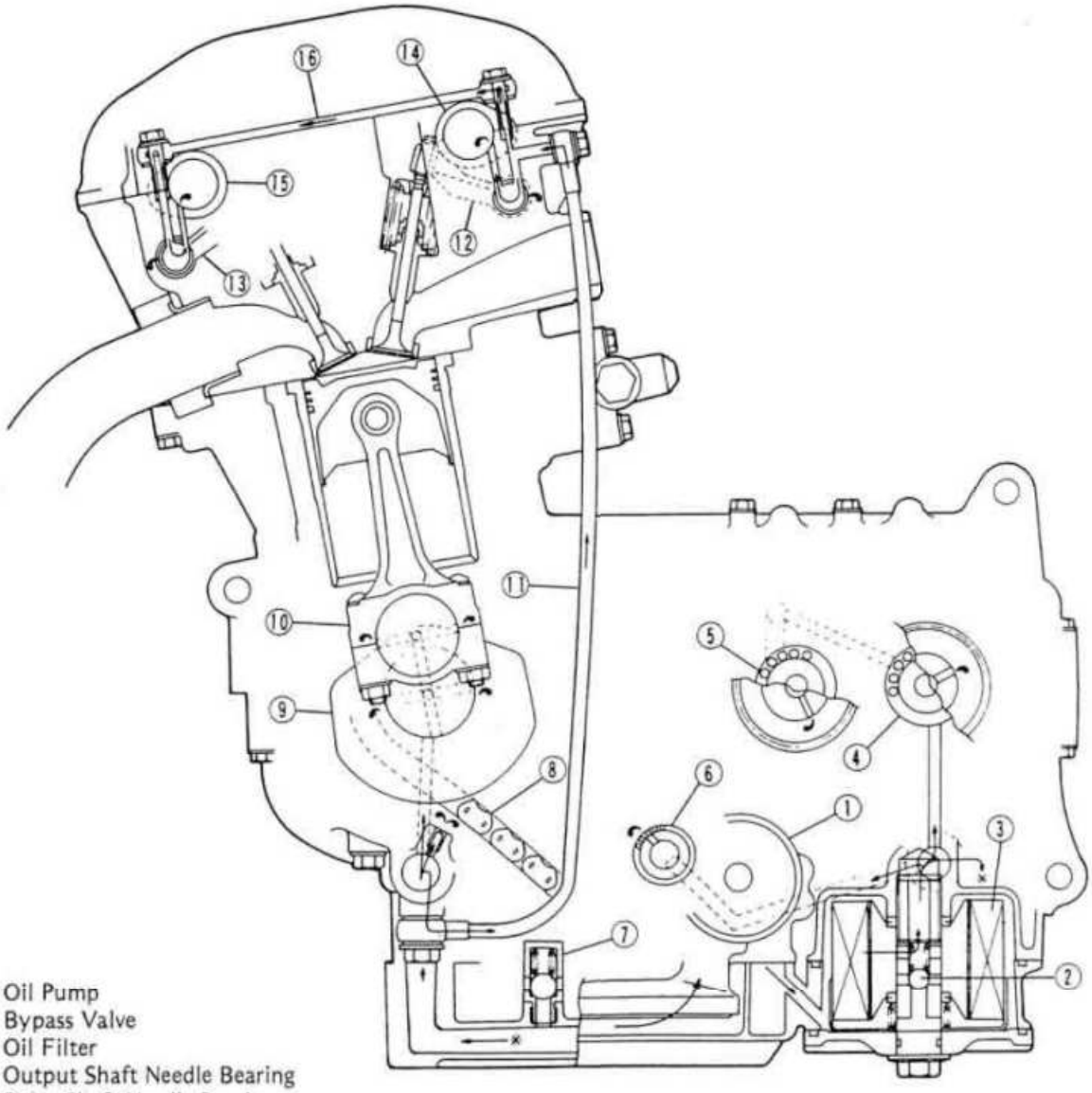


T1: 12 N-m (1.2 kg-m, 8.5 ft-lb)
T2: 9.8 N-m (1.0 kg-m, 7.0 ft-lb)
T3: 25 N-m (2.5 kg-m, 18.0 ft-lb)
T4: 15 N-m (1.5 kg-m, 11.0 ft-lb)
T5: 20 N-m (2.0 kg-m, 14.5 ft-lb)
L : Apply a non-permanent locking agent to the thread.
O : Apply engine oil.
SS: Apply silicone sealant (Kawasaki Bond: 56019-120).
LG: Apply liquid gasket — black (Kawasaki Bond: 92104-1003) to the upper and lower case mating surface.



1. Oil Passage Plug
2. Oil Pump
3. Oil Pressure Relief Valve
4. Oil Switch
5. Engine Oil Drain Plug

Engine Oil Flow Chart



1. Oil Pump
2. Bypass Valve
3. Oil Filter
4. Output Shaft Needle Bearing
5. Drive Shaft Needle Bearing
6. Secondary Gear Shaft Needle Bearing
7. Relief Valve
8. Primary Chain
9. Crankshaft
10. Connecting Rod
11. Oil Hose
12. Inlet Rocker Arm
13. Exhaust Rocker Arm
14. Inlet Camshaft
15. Exhaust Camshaft
16. Oil Pipe (Cylinder Head)

Sealant

Kawasaki Bond (Liquid Gasket – Black):92104-1003



Kawasaki Bond (Silicone Sealant): 56019-120



Engine Oil and Filter

Engine Oil and/or Filter Change

See the Base Manual, noting the following.

○There is no necessity for removing the lower fairing.

Oil Filter and Mounting Bolt Removal

See the Base Manual, noting the following.

○There is no necessity for removing the lower fairing.

Oil Pan

Oil Pan Removal

See the Base Manual, noting the following.

○This model has no oil cooler and banjo bolts.

Oil Pump

Oil Pressure Measurement

See the Base Manual, noting the following.

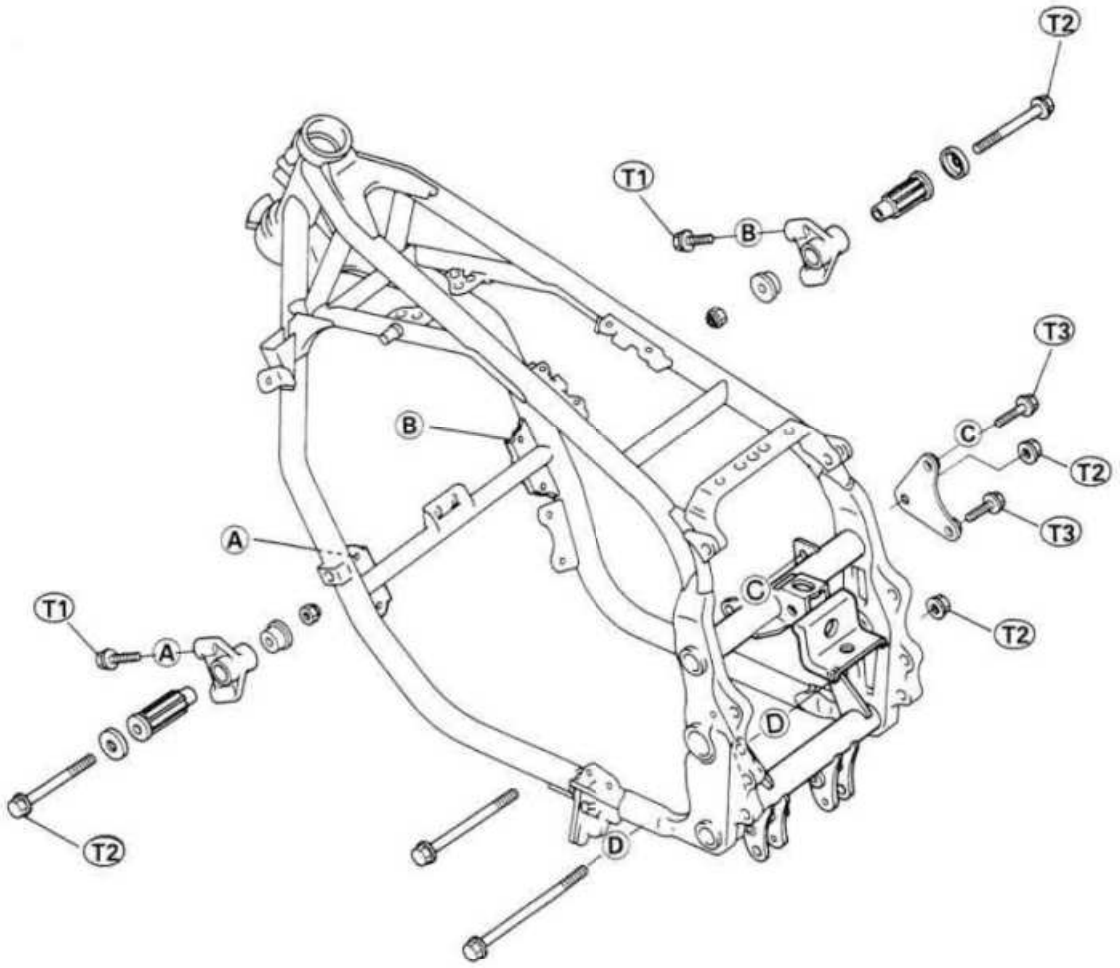
○There is no necessity for removing the lower fairing.

Engine Removal/Installation

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Exploded View



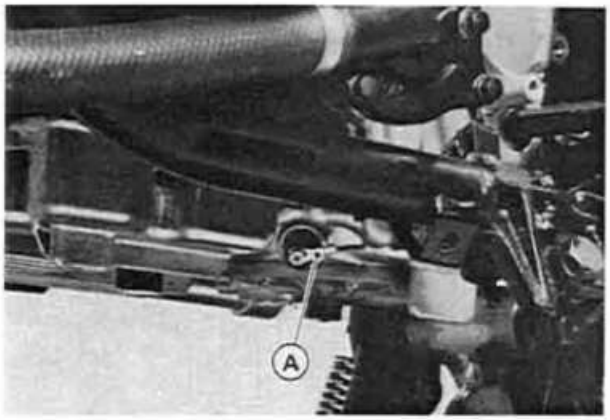
T1 : 19 N-m (1.9 kg-m, 13.5 ft-lb)
T2 : 23 N-m (2.3 kg-m, 16.5 ft-lb)
T3 : 42 N-m (4.3 kg-m, 31 ft-lb)

Engine Removal/Installation

Engine Removal

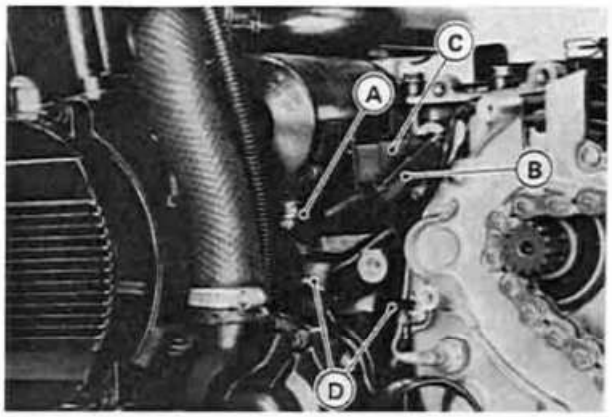
●Remove the following.
Lower Fairing
Engine Oil (Drain)
Rider's Seat
Knee Grip Covers
Rear View Mirror
Upper Fairing
Coolant (Drain)
Fuel Tank
Side Covers
Carburetor Assembly
Air Cleaner Housing
Thermostat Housing
Air Suction Valve and Vacuum Switch Valve (US model only)
Ignition Coils
Water Pipes
Baffle Plate
Radiator with Radiator Fan
Radiator Hose (Lower)
Muffler
Clutch Cable Lower End
Engine Sprocket

●Disconnect the following.
Battery Ground Lead
Pickup Coil Lead Connector
Oil Pressure Switch Terminal Lead



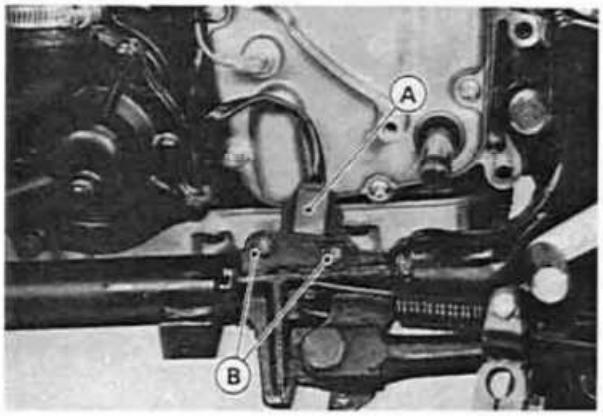
A. Oil Pressure Switch Terminal Lead

Starter Motor Terminal Lead
Side Stand Switch Lead Connectors
Alternator Lead and Neutral Switch Lead Connector



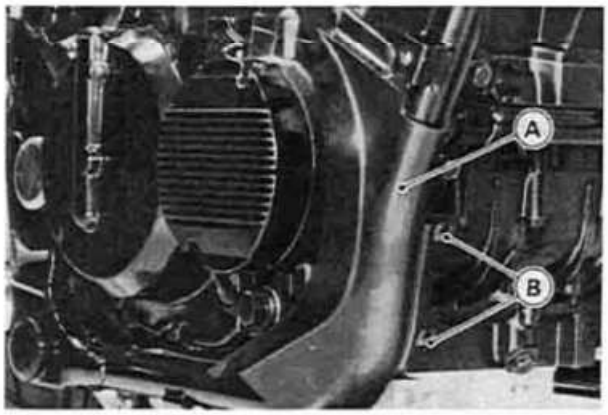
A. Starter Motor Terminal Lead
B. Side Stand Switch Lead Connectors
C. Alternator Lead and Neutral Switch Lead Connector
D. Clamp

●Remove the side stand switch.



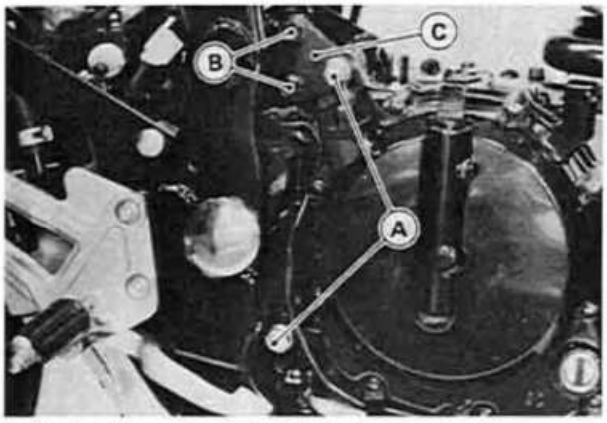
A. Side Stand Switch
B. Mounting Nuts

●Remove the heat guard.

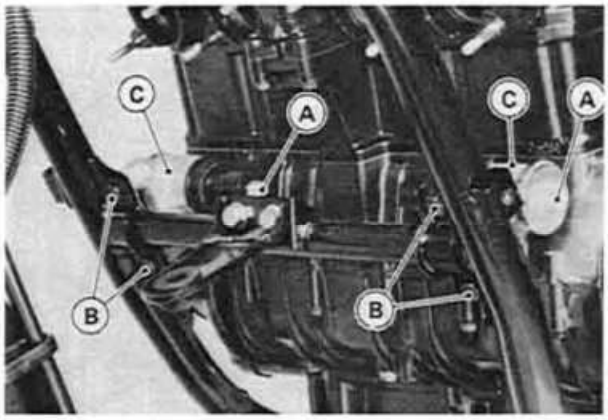


A. Heat Guard
B. Mounting Screws

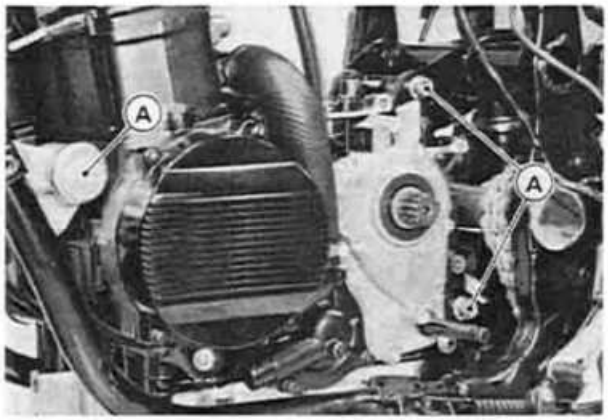
- Jack the engine up slightly to take the weight off the mounting bolts.
- Remove the engine mounting bolts and bracket bolts.



A. Engine Mounting Bolt C. Engine Bracket
B. Engine Bracket Bolt



A. Engine Mounting Bolt C. Engine Bracket
B. Engine Bracket Bolt



A. Engine Mounting Bolts

- Lift the engine out to the right.

Engine Installation Notes

- Engine installation is the reverse of removal.
- Tighten the following to the specified torque (see Exploded View).
  - Engine Mounting Bolts
  - Engine Mounting Nuts
  - Engine Bracket Bolts
- To route the leads, cables and hoses, refer to the General Information chapter.
- To install parts removed, refer to the appropriate chapters.
- Adjust the following.
  - Throttle Cable
  - Clutch Cable
  - Choke Cable
  - Drive Chain
  - Rear Brake

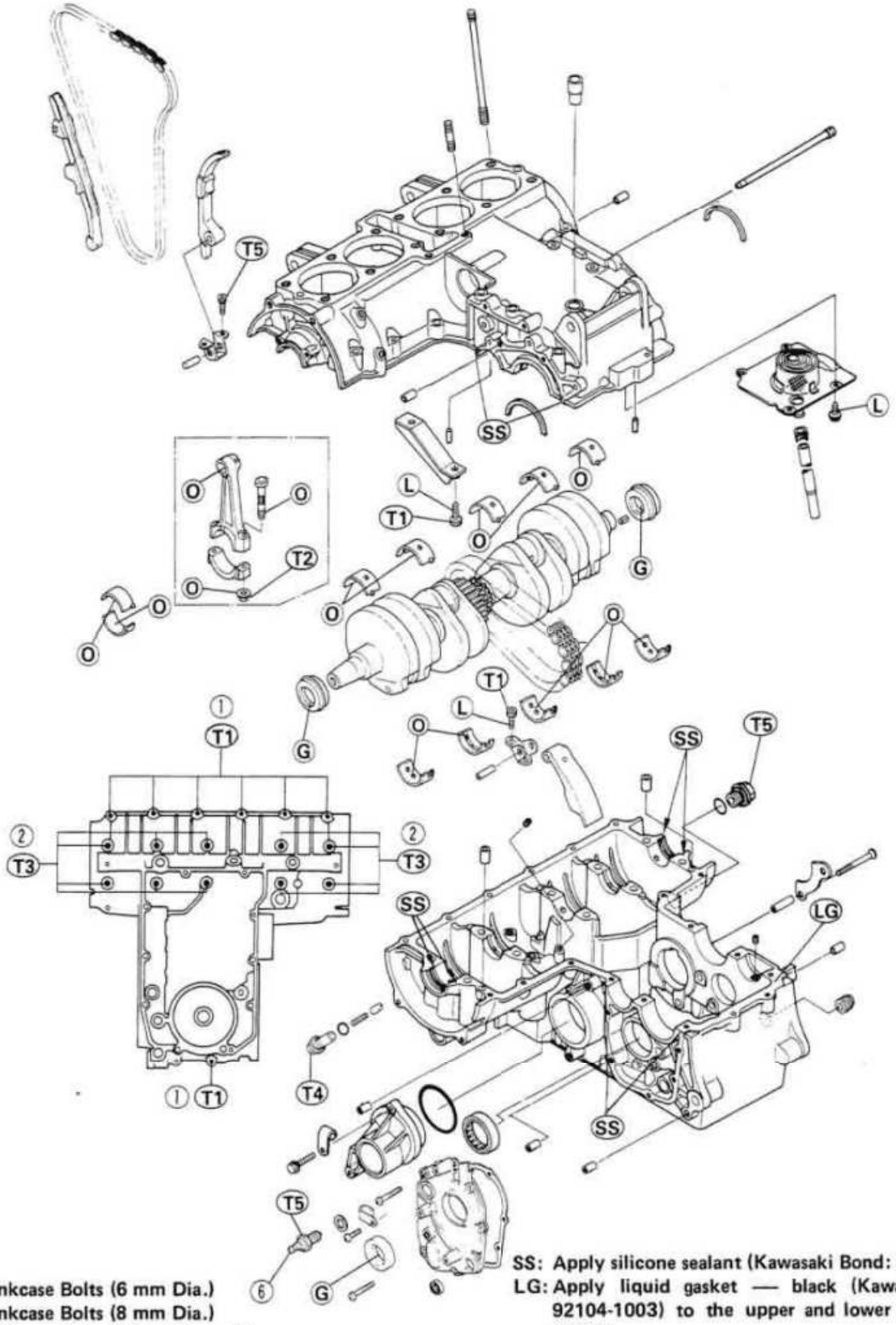
Crankshaft/Transmission

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  Shift Fork Guide Pin/Shift Drum Groove Wear . . . . . *
  Gear Dog/Gear Dog Hole Damage . . . . . *
  Ball and Needle Bearing Wear . . . . . *

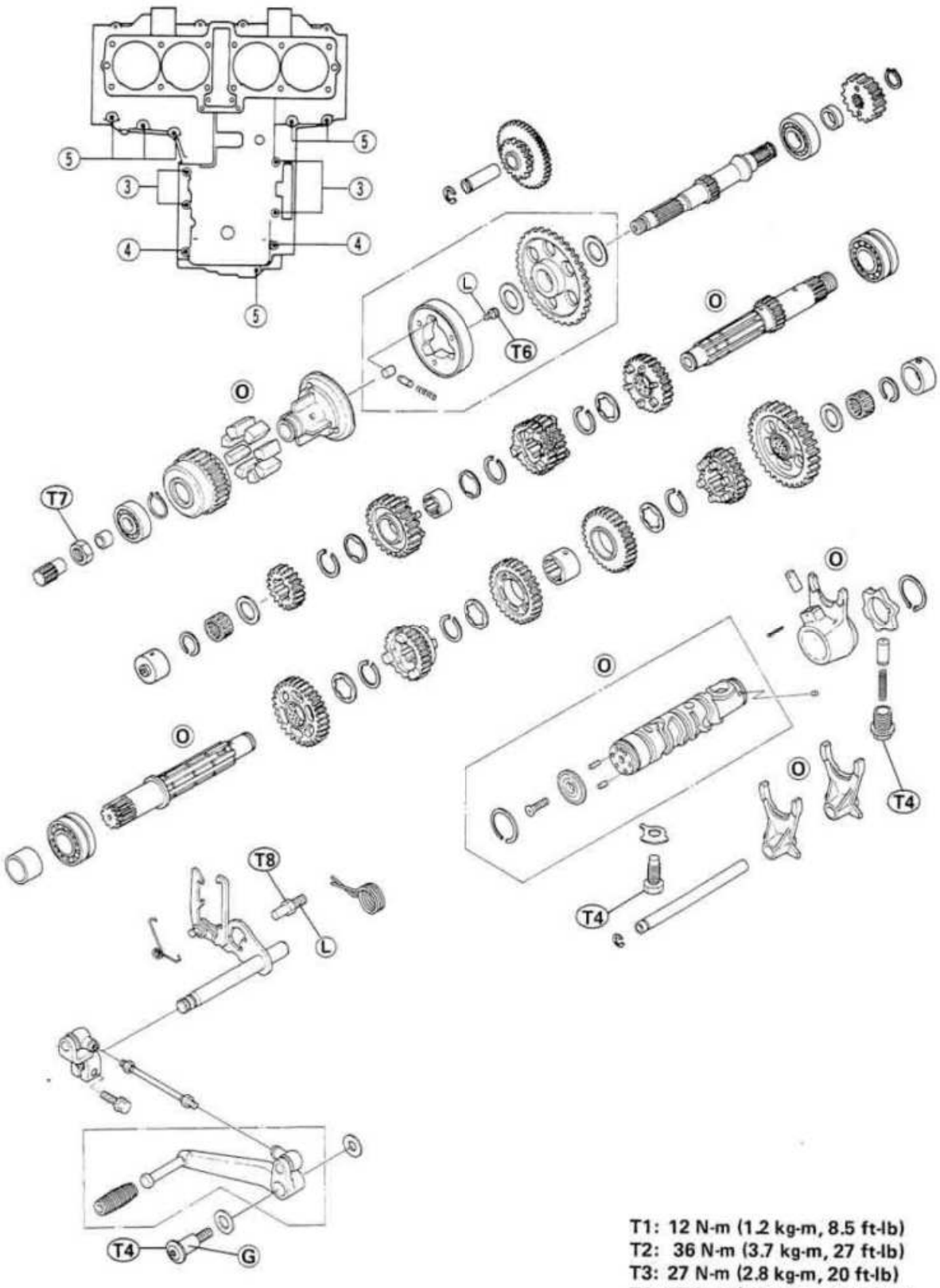
*.....Refer to Base Manual

Exploded View



1. Crankcase Bolts (6 mm Dia.)
2. Crankcase Bolts (8 mm Dia.)
3. Crankcase Bolts (95 mm Length)
4. Crankcase Bolts (75 mm Length)
5. Crankcase Bolts (40 mm Length)
6. Neutral Switch

SS: Apply silicone sealant (Kawasaki Bond: 56019-120).
LG: Apply liquid gasket — black (Kawasaki Bond: 92104-1003) to the upper and lower case mating surface.
L : Apply a non-permanent locking agent to the threads.
O : Apply engine oil to the surface.
G : Apply high temperature grease.



T1: 12 N-m (1.2 kg-m, 8.5 ft-lb)
T2: 36 N-m (3.7 kg-m, 27 ft-lb)
T3: 27 N-m (2.8 kg-m, 20 ft-lb)
T4: 25 N-m (2.5 kg-m, 18.0 ft-lb)
T5: 15 N-m (1.5 kg-m, 11.0 ft-lb)
T6: 34 N-m (3.5 kg-m, 25 ft-lb)
T7: 59 N-m (6.0 kg-m, 43 ft-lb)
T8: 20 N-m (2.0 kg-m, 14.5 ft-lb)

Specifications

See the Base Manual, noting the following.

Item	Standard	Service Limit
Crankshaft/Connecting Rods:		
Connecting rod big end side clearance	0.13 – 0.33 mm	0.5 mm
Secondary Sprocket, Shaft/ Starter Motor Clutch:		
Primary chain 20-link length	190.5 – 190.8 mm	193.4 mm

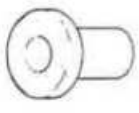
Special Tools

See the Base Manual, adding the following.

Flywheel Holder: 57001-306



Bearing Driver: 57001-297

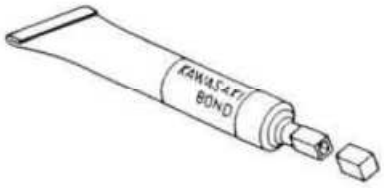


Sealant

Kawasaki Bond (Liquid Gasket – Black): 92104-1003



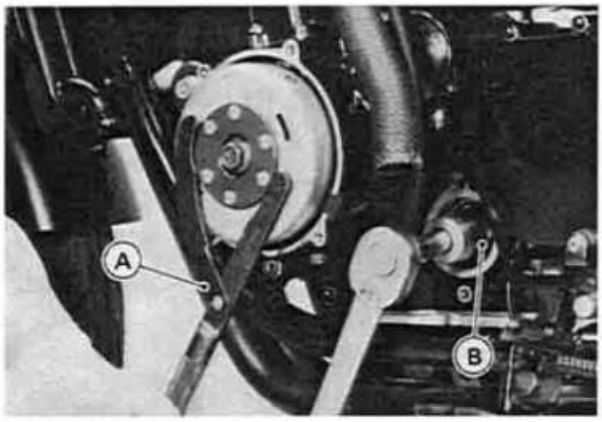
Kawasaki Bond (Silicone Sealant): 56019-120



Crankcase Splitting

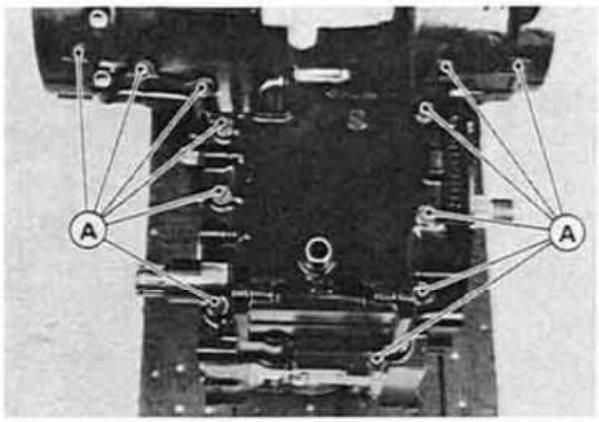
Crankcase Splitting

●Remove the following.
Engine Oil (Drain)
Coolant (Drain)
Clutch Assembly
Pickup Coil
Water Pump, Radiator Hose
Gear Case
Alternator Cover
●Holding the alternator rotor steady with the flywheel holder (special tool), remove the secondary shaft nut.



A. Flywheel Holder: 57001-306
B. Secondary Shaft Nut

●Remove the alternator rotor and stator (see the Electrical System chapter).
●Remove the engine (see the Engine Removal/Installation chapter).
●Set the engine on a clean surface and hold the engine steady while parts are being removed.
●Remove the following only if the crankshaft is to be removed.
Oil Hose
Cylinder Head Cover
Oil Pipes
Cam Chain Tensioner
Camshafts
Cylinder Head Assembly
Cylinder, Water Pipe
Pistons
●Remove the following.
Timing Rotor
Starter Motor
External Shift Mechanism Cover
Shift Arm and Shift Shaft Assembly
●Remove the 6 mm upper crankcase half bolts.



A. 6 mm Upper Crankcase Half Bolts

●Turn the engine upside down.
○See the Base Manual after this.

Crankcase Assembly

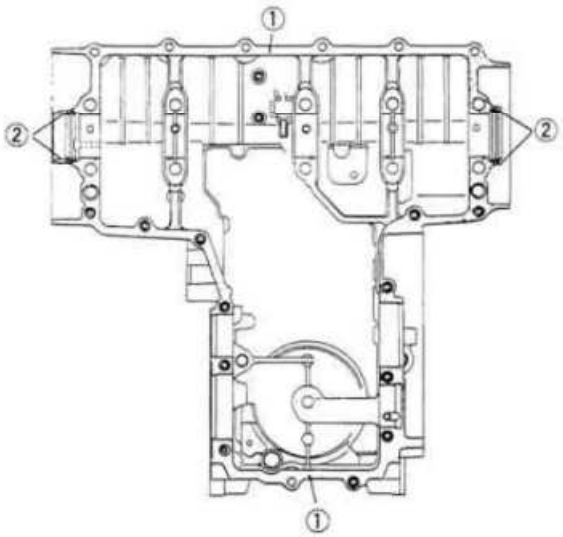
See the Base Manual, noting the following.
○Apply liquid gasket – black – and silicone sealant (sealant) as shown in the figure below.

CAUTION

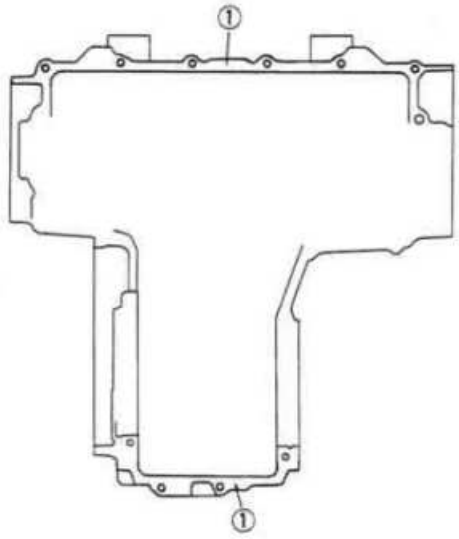
○If liquid gasket and silicone sealant adhere to any areas not indicated, the engine oil passages may be obstructed, causing engine seizure.

Liquid Gasket and Silicone Sealant Application Areas

Lower Crankcase Half



Upper Crankcase Half



1. Liquid Gasket – Black (Kawasaki Bond: 92104-1003)
2. Silicone Sealant (Kawasaki Bond: 56019-120) – Apply silicone sealant upon liquid gasket.

Crankshaft/Connecting Rods

Connecting Rod Big End Side Clearance

See the Base Manual, noting the following.

Connecting Rod Big End Side Clearance

Standard:	**0.13 – 0.33 mm**
Service Limit:	**0.5 mm**

Secondary Sprocket, Shaft/Starter Motor Clutch

Secondary Sprocket, Shaft/Starter Motor Clutch Removal

See the Base Manual, noting the following.

○Remove the clutch, and then the oil pump.

Secondary Sprocket, Shaft/Starter Motor Clutch Installation

See the Base Manual, noting the following.

○Using the bearing driver (special tool: 57001-297), tap the secondary shaft bearing into the crankcase with the secondary shaft until the bearing stops at the bottom of the crankcase bearing hole.

Primary Chain Wear

See the Base Manual, noting the following.

Primary Chain 20-link Length

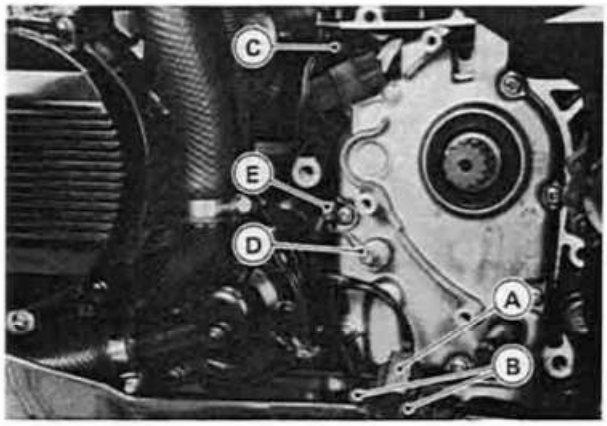
Service Limit:	**193.4 mm**

Transmission

External Shift Mechanism Removal

See the Base Manual, noting the following.

○Remove the engine sprocket, and then the side stand switch.



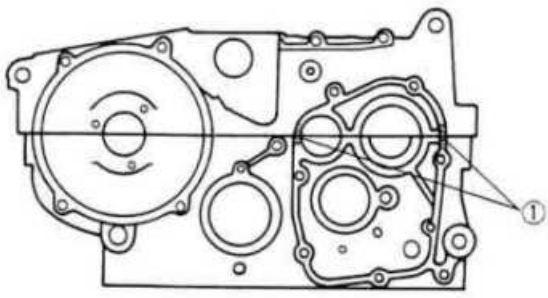
A. Side Stand Switch
B. Mounting Bolts
C. Side Stand Switch Lead
D. Neutral Switch Lead Connector
E. Clamps

●Disconnect the neutral switch lead connector, and remove the external shift mechanism cover.

External Shift Mechanism Installation Notes

See the Base Manual, noting the following.

○Apply silicone sealant (sealant) to the mating surface as shown.

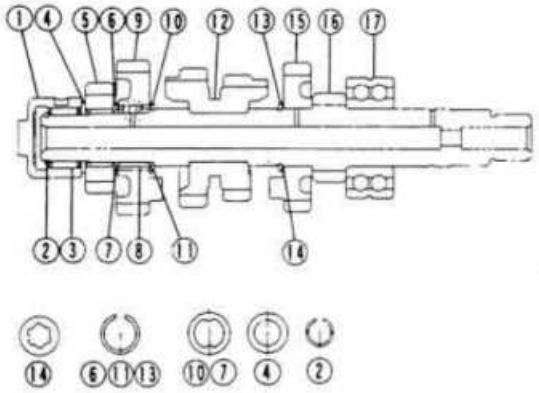


1. Silicone Sealant (Kawasaki Bond: 56019-120)

Drive Shaft Disassembly

See the Base Manual, noting the following.

Drive Shaft



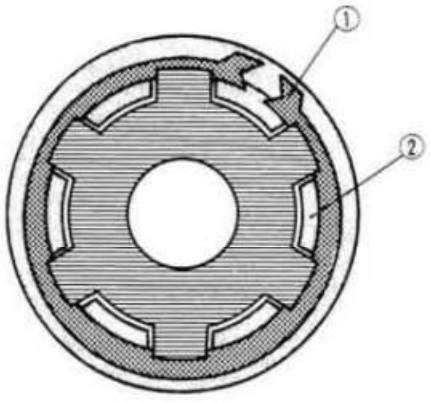
1. Bearing Outer Race
2. Circlip
3. Needle Bearing
4. Thrust Washer
5. 2nd Gear
6. Circlip
7. Toothed Washer
8. Bushing
9. Top Gear
10. Toothed Washer
11. Circlip
12. 3rd, 4th Gear
13. Circlip
14. Washer
15. 5th Gear
16. Drive Shaft (1st Gear)
17. Ball Bearing

Output Shaft Assembly Notes

See the Base Manual, noting the following.

- Always install circlips so that the opening is aligned with a spline groove.

Circlip and Toothed Washer Installation



1. Circlip
2. Toothed Washer

Wheels/Tires

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- Axle Inspection . . . . . *
- Wheel Balance . . . . . *

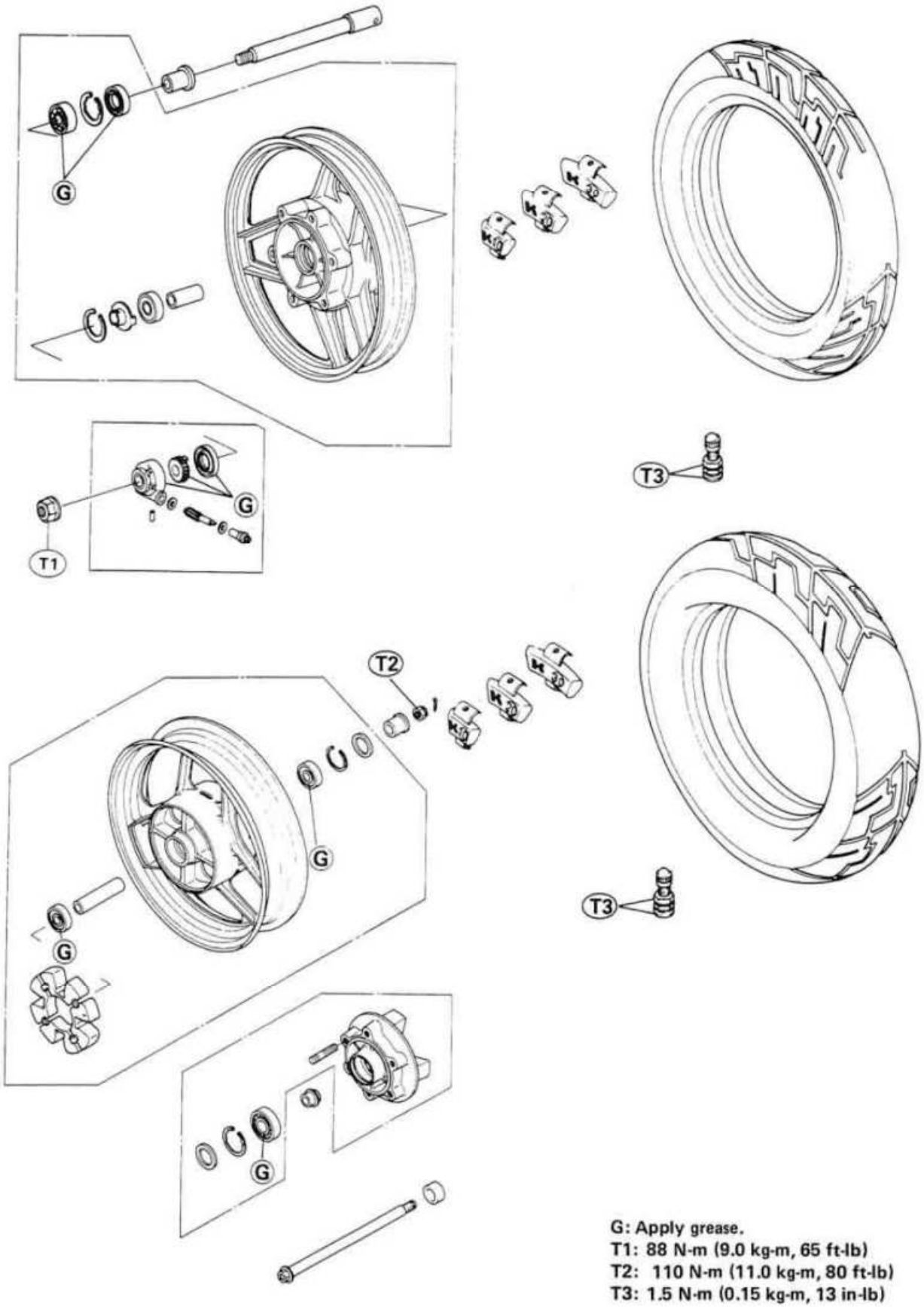
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- Hub Bearing Inspection and Lubrication . . . . . *
- Grease Seal Inspection and Lubrication . . . . . *

Speedometer Gear Housing . . . . . *
- Speedometer Gear Housing Disassembly . . . . . *
- Speedometer Gear Housing Assembly . . . . . *
- Speedometer Gear Housing Lubrication . . . . . *

*.....Refer to Base Manual

Exploded View



G: Apply grease.
T1: 88 N-m (9.0 kg-m, 65 ft-lb)
T2: 110 N-m (11.0 kg-m, 80 ft-lb)
T3: 1.5 N-m (0.15 kg-m, 13 in-lb)

Specifications

Refer to the Base Manual, noting the following.

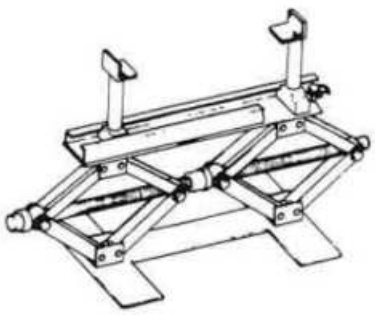
Item		Standard	Service Limit
Tires:			
Tire tread depth:	Front	4.4 mm	1 mm
Standard tire:			
Front: Make & type		(Tubeless) DUNLOP K205F or METZELER ME33 LASER	– – –
	*	DUNLOP K205F	
Size		110/80 V16 – V240 or 110/80 V16	– – –
	**	110/80 V16 – V240	
	***	110/80 V16	
Rear: Make & type		(Tubeless) DUNLOP K205 or METZELER ME99 A2	– – –
	*	DUNLOP K205	
Size		130/90 V16 – V240 or 130/90 VB16	– – –
	**	130/90 V16 – V240	
	***	130/90 V16	

*: (AR) (C) (Cal) (G) (S) (SA) (U)
**: (AR) (G) (S) (SA)
***: (C) (Cal) (U)
(AR): Australian model
(C) : Canadian model
(Cal) : California model
(G) : West German model
(S) : Swiss model
(SA) : South African model
(U) : US model

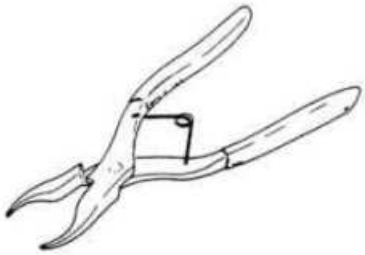
Special Tools

See the Base Manual, adding the following.

Jack Stand: 57001-1238



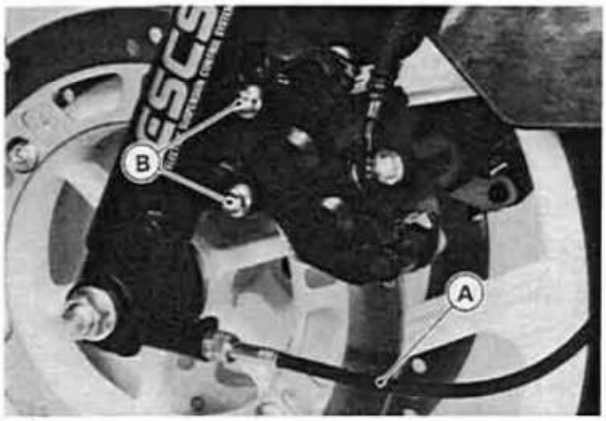
Inside Circlip Pliers: 57001-143



Wheels (Rims)

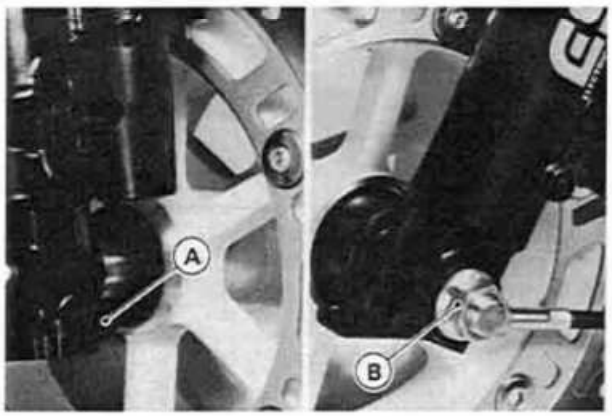
Front Wheel Removal

●Remove the following.
Speedometer Cable Lower End
Right or Left Side Brake Caliper Mounting Bolts



A. Speedometer Cable B. Caliper Mounting Bolts

Right Side Axle Clamp Bolt (Loosen)
Axle Nut

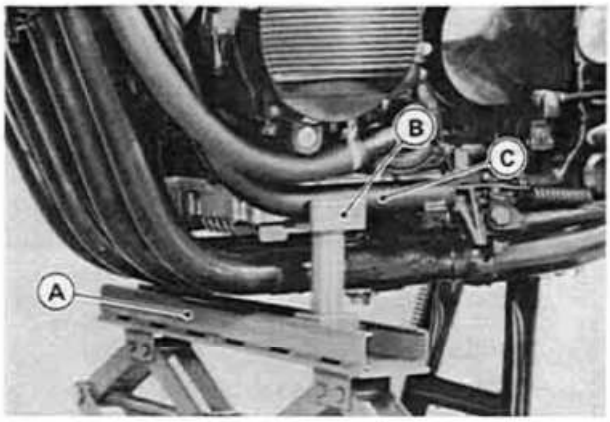


A. Axle Clamp Bolt B. Axle Nut

●Remove the lower fairing.
●Place the jack stand (special tool) under the engine, and raise the front wheel off the ground.

WARNING

○**Be sure to set the stand so that it lifts the straight portion of the down tubes.**



A. Jack Stand: 57001-1238 C. Down Tube
B. Rest

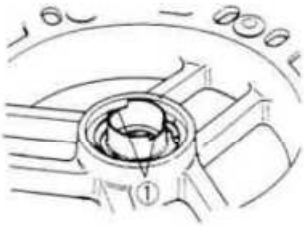
●Pull out the axle to the right and drop the front wheel out of the forks.
●Remove the front wheel.

CAUTION

○**Do not lay the wheel down on one of the discs. This can damage or warp the disc. Place blocks under the wheel so that the discs do not touch the ground.**

Front Wheel Installation Notes

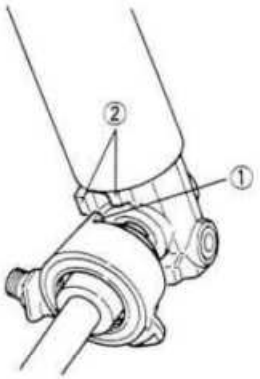
●Installations is the reverse of removal.
●Install the speedometer gear housing so that it fits in the speedometer gear drive notches.





1. Notches 2. Projections

●Fit the speedometer gear housing stop to the fork leg stop.



1. Housing Stop 2. Fork Leg Stop

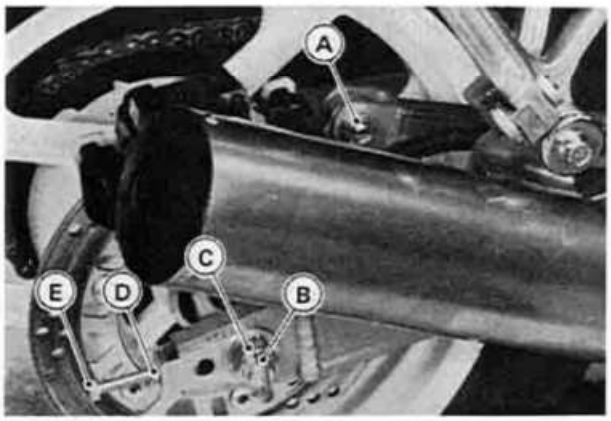
- Fit the collar on the right hand side of the hub.
- Tighten the following to the specified torque (see Exploded View).
  - Axle Nut
  - Axle Clamp Bolt (see the Suspension chapter)
  - Right or Left Side Brake Caliper Mounting Bolts (see the Brakes chapter)
- Check the front brake for weak braking power and brake drag.

WARNING

○Do not attempt to drive the motorcycle until a full brake lever is obtained by pumping the brake lever until the pads are against the disc. The brakes will not function on the first application of the lever if this is not done.

Rear Wheel Removal

- Remove the following.
  - Chain Cover
  - Torque Link Nuts (Loosen)
  - Axle Nut Cotter Pin
  - Axle Nut
  - Chain Adjusting Bolt Locknuts (Loosen)
  - Chain Adjusting Bolt (Turn out fully.)
  - Axle



A. Torque Link Nut
B. Axle Nut Cotter Pin
C. Axle Nut
D. Chain Adjusting Bolt Locknuts
E. Chain Adjusting Bolt

- Pull the drive chain toward the left, and remove the rear wheel.

CAUTION

○Do not lay the wheel on the ground with the disc facing down. This can damage or warp the disc. Place blocks under the wheel so the disc does not touch the ground.

Rear Wheel Installation Notes

- Installation is the reverse of removal.
- Adjust the drive chain slack (see the Final Drive chapter).
- Tighten the following to the specified torque (see Exploded View).
  - Axle Nut
  - Torque Link Nuts (see the Brakes chapter)
- Install a new cotter pin.
- Check the rear brake for weak braking power and brake drag.

WARNING

○Do not attempt to drive the motorcycle until a full brake pedal is obtained by pumping the brake pedal until the pads are against the disc. The brakes will not function on the first application of the pedal if this is not done.

Tires

Tire Inspection

See the Base Manual, noting the following.

Tire Tread Depth

Front	
Standard:	4.4 mm
Service Limit:	1 mm
Rear	
Standard:	6.9 mm
Service Limit:	2 mm under 130 km/h (80 mph)
	3 mm over 130 km/h (80 mph)

The following standard tires are used for the ZX600C and ZX500B.

Standard Tire
(Other than (AR) (C) (Cal) (G) (S) (SA) (U))

Front	
Make & Type:	(Tubeless) DUNLOP K205F or METZELER ME33 LASER
Size:	110/80 V16 – V240 or 110/80 V16
Rear	
Make & Type:	(Tubeless) DUNLOP K205 or METZELER ME99 A2
Size:	130/90 V16 – V240 or 130/90 VB16

Standard Tire ((AR) (C) (Cal) (G) (S) (SA) (U))

Front	
Make & Type:	(Tubeless) DUNLOP K205F
Size:	(AR) (G) (S) (SA) 110/80 V16 – V240, (C) (Cal) (U) 110/80 V16
Rear	
Make & Type:	(Tubeless) DUNLOP K205
Size:	(AR) (G) (S) (SA) 130/90 V16 – V240, (C) (Cal) (U) 130/90 V16

(AR): Australian model
(C) : Canadian model
(Cal): California model
(G) : West German model
(S) : Swiss model
(SA): South African model
(U) : US model

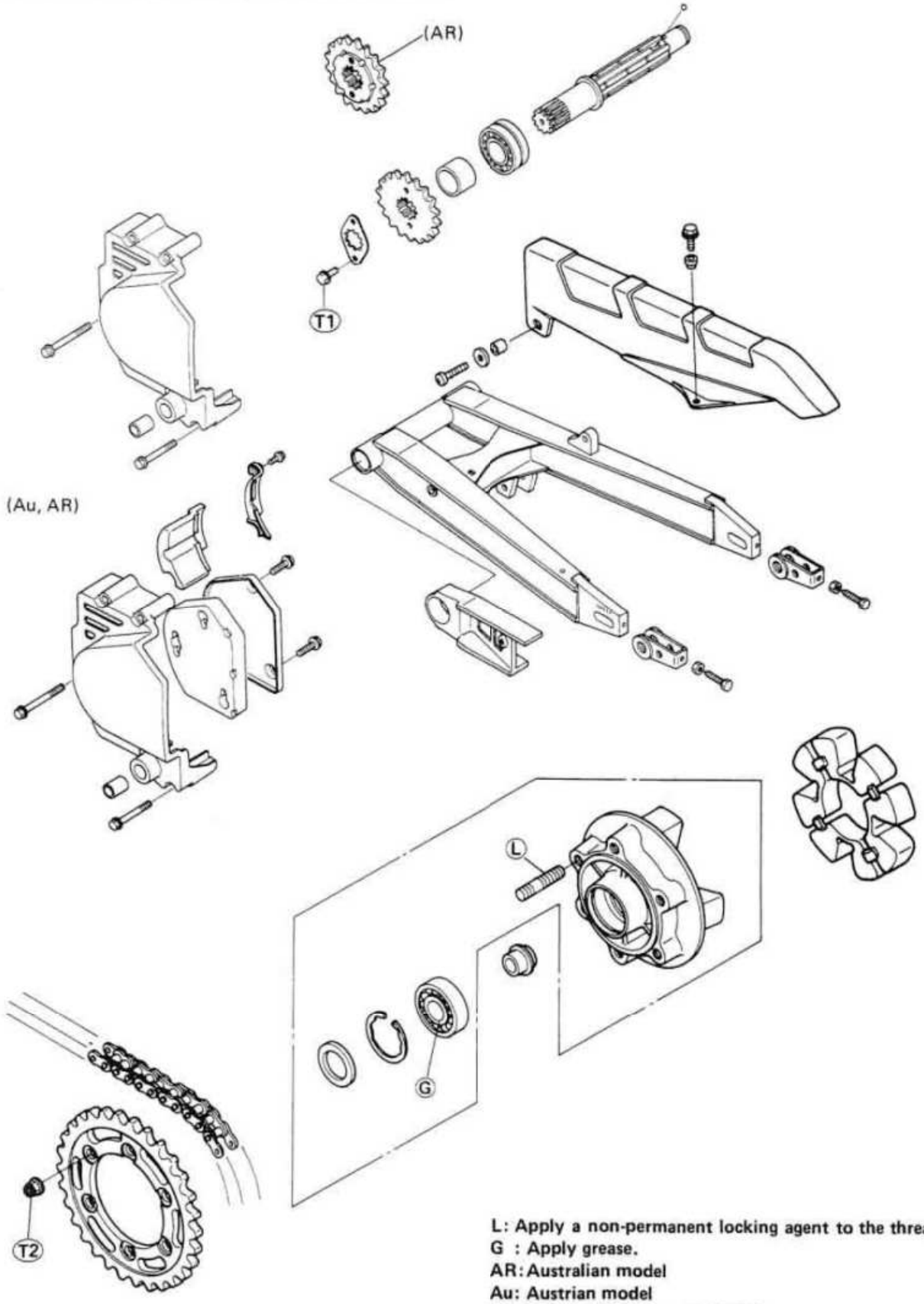
Final Drive

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Damper Inspection	*

*.....Refer to Base Manual

Exploded View



L: Apply a non-permanent locking agent to the threads.
G : Apply grease.
AR: Australian model
Au: Austrian model
T1: 9.8 N-m (1.0 kg-m, 7.0 ft-lb)
T2: 74 N-m (7.5 kg-m, 54 ft-lb)

Specifications

The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

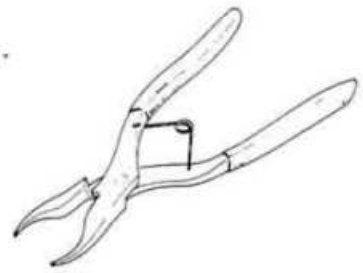
Item		Standard	Service Limit
Drive Chain:			
Make and type:		Enuma Endless	— — —
	ZX600C	EK50MV-O 102 Links/39T	
		(AR) 38T	— — —
	ZX500B	EK50MV-O 104 Links/42T	— — —
Sprocket, Coupling:			
Rear sprocket diameter:			
	ZX600C	(AR) 182.13 – 182.63 mm	181.8 mm

(AR): Australian model

Special Tool

See the Base Manual, adding the following.

Inside Circlip Pliers: 57001-143

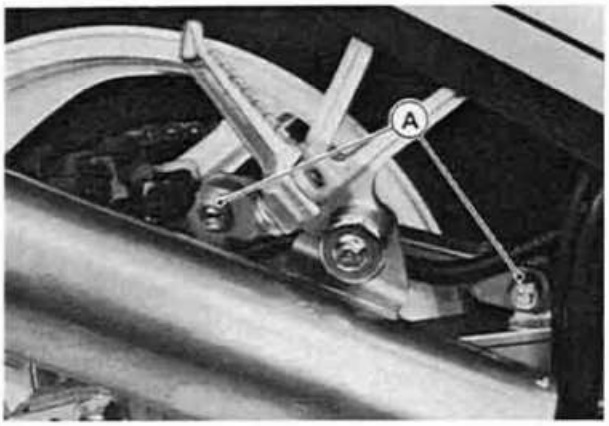


Drive Chain

Drive Chain Slack Adjustment

See the Base Manual, noting the following.

○Loosen the torque link nuts.

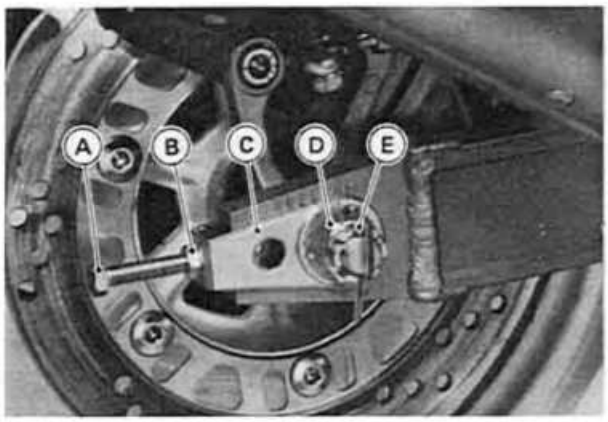


A. Torque Link Nuts

○Turn in or out both the chain adjusting bolts evenly, adjust the chain so that the chain slack will be within the standard value.

NOTE

○*The notch on the left side adjuster should align with the same swing arm mark that the right side adjuster notch aligns with.*

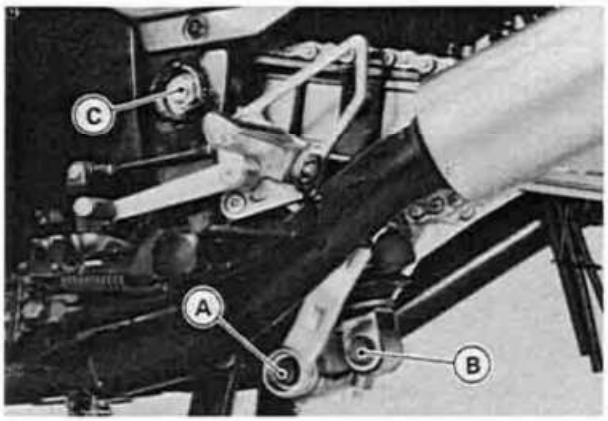


A. Chain Adjusting Bolt
B. Locknut
C. Chain Adjuster
D. Axle Nut
E. Cotter Pin

○After adjusting the chain slack, tighten the torque link nuts to the specified torque (see Exploded View).

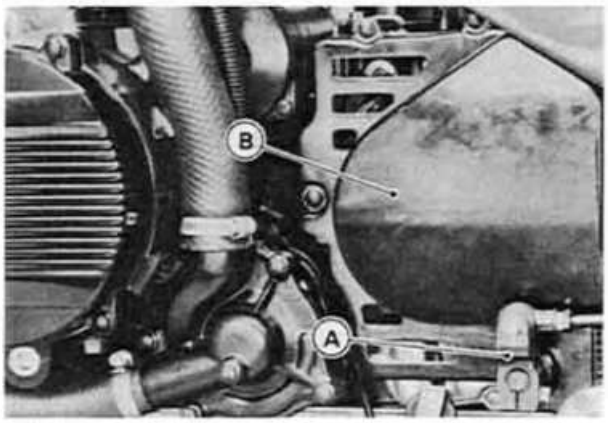
Drive Chain Removal

●Remove the following.
Rear Wheel (see the Wheel/Tires chapter)
Tie-rod Lower Mounting Bolt
Rear Shock Absorber Lower Mounting Bolt
Swing Arm Pivot Shaft



A. Tie-rod Lower Mounting Bolt
B. Rear Shock Absorber Lower Mounting Bolt
C. Swing Arm Pivot Shaft

Shift Lever
Engine Sprocket Cover



A. Shift Lever
B. Engine Sprocket Cover

●Disengage the engine sprocket with the drive chain.
●Pull the swing arm down with the drive chain.
●Take off the drive chain from the chassis.

CAUTION

○**Take care not to damage the brake hose. Damage to the brake line greatly reduces brake line strength and increase the change of brake fluid leakage, resulting in the loss of brake control.**

Drive Chain Installation Notes

- Installation is the reverse of removal.
- Install the shift lever at the correct position (see the Frame chapter).
- Route the hoses through the hose guide clamp (see the General Information chapter).
- Tighten the following to the specified torque (see Exploded View).
  - Swing Arm Pivot Nut (see the Suspension chapter)
  - Tie-rod Lower Nut (see the Suspension chapter)
  - Rear Shock Absorber Lower Nut (see the Suspension chapter)
  - Axle Nut (see the Wheel/Tires chapter)
  - Torque Link Nuts (see the Brakes chapter)
- Adjust the drive chain slack (see Drive Chain Slack Adjustment).
- Install a new cotter pin.
- Check the rear brake for weak braking power, and brake drag (see the Brake chapter).

Sprocket, Coupling

Sprockets Wear

See the Base Manual, noting the following.

Sprocket Diameter

Rear Sprocket (Australian Model)

Standard	**ZX600**	**182.13 – 182.63 mm/38T**
Service Limit	**ZX600**	**181.8 mm**

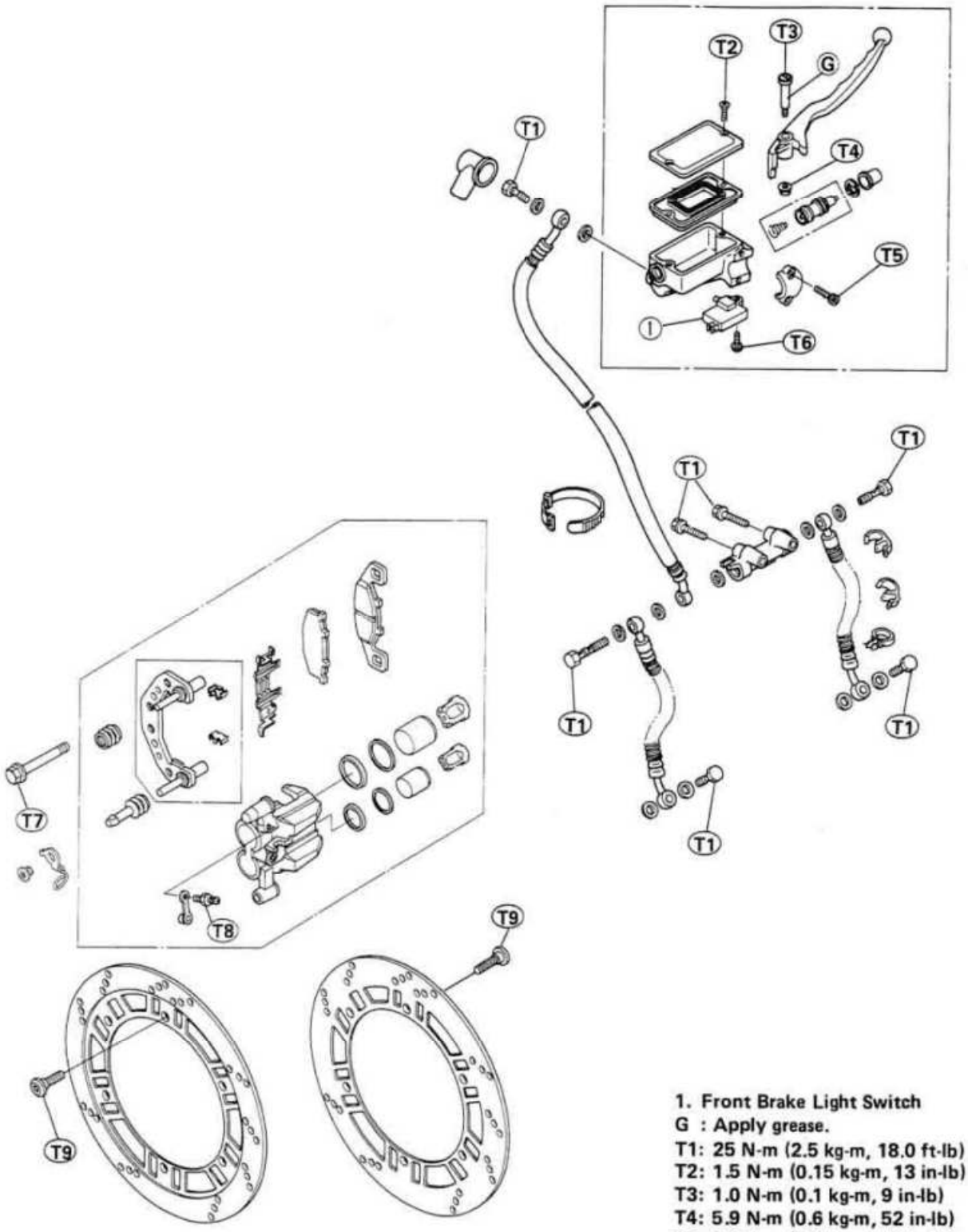
Brakes

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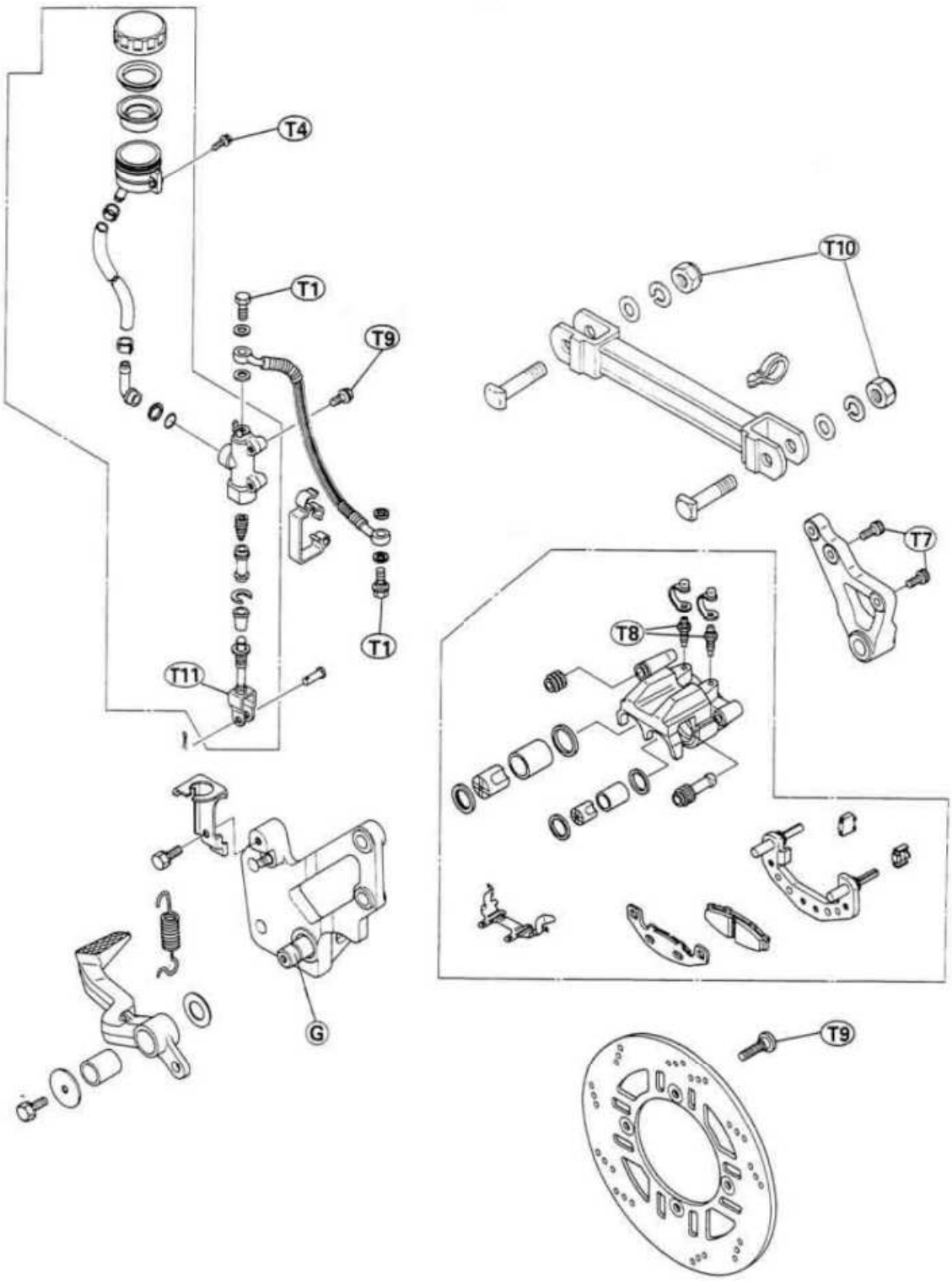
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*.....Refer to Base Manual

Exploded View



1. Front Brake Light Switch
G : Apply grease.
T1: 25 N-m (2.5 kg-m, 18.0 ft-lb)
T2: 1.5 N-m (0.15 kg-m, 13 in-lb)
T3: 1.0 N-m (0.1 kg-m, 9 in-lb)
T4: 5.9 N-m (0.6 kg-m, 52 in-lb)
T5: 8.8 N-m (0.9 kg-m, 78 in-lb)
T6: 1.3 N-m (0.13 kg-m, 11 in-lb)
T7: 33 N-m (3.3 kg-m, 25 ft-lb)
T8: 7.8 N-m (0.8 kg-m, 69 in-lb)
T9: 23 N-m (2.3 kg-m, 16.5 ft-lb)
T10: 34 N-m (3.5 kg-m, 25 ft-lb)
T11: 17.2 N-m (1.75 kg-m, 152 in-lb)


T4
T1
T9
T1
T11
G
T10
T7
T8
T9

Specifications

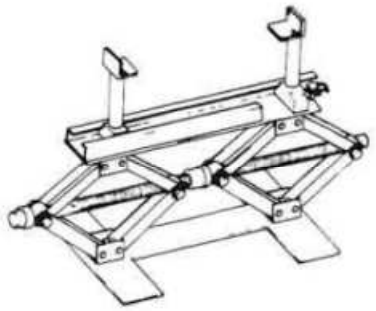
The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

Item		Standard	Service Limit
Brake Adjustment:			
Brake pedal position		About 50 mm below top of footpeg	– – –
Brake Pads:			
Pad lining thickness:	Front	4.35 mm	1 mm
	Rear	4.35 mm	1 mm
Brake Discs:			
Disc thickness:	Front	4.3 – 4.6 mm	4.0 mm
Disc runout:	Front	Under 0.1 mm	0.3 mm
	Rear	Under 0.1 mm	0.3 mm

Special Tool

See the Base Manual, adding the following.

Jack Stand: 57001-1238



Brake Adjustment

Brake Pedal Position Inspection

See the Base Manual, noting the following.

Brake Pedal Position

Standard: About 50 mm below top of footpeg

Brake Pedal Position Adjustment

See the Base Manual, noting the following.

○After adjustment, install the master cylinder on the footpeg bracket, and tighten the mounting bolts to the specified torque (see Exploded View).

○Install the joint pin form the frame side, and insert a new cotter pin and spread its ends.

○Tighten the master cylinder locknut to the specified torque (see Exploded View).

○Adjust the rear brake light switch if necessary (see the Electrical System chapter).

Caliper

Front Caliper Removal

●Disconnect the speedometer cable lower end (left side caliper removal).

●Loosen the banjo bolt at the caliper, and tighten it loosely.

●Remove the caliper mounting bolts and take off the caliper.



A. Speedometer Cable Lower End
B. Banjo Bolt
C. Caliper Mounting Bolts
D. Caliper
E. Brake Hose

●Disconnect the brake hose from the caliper.

★If the caliper is to be disassembled after removal and if compressed air is not available, remove the piston using the following steps before disconnecting the brake hose from the caliper.

○Remove the pads.

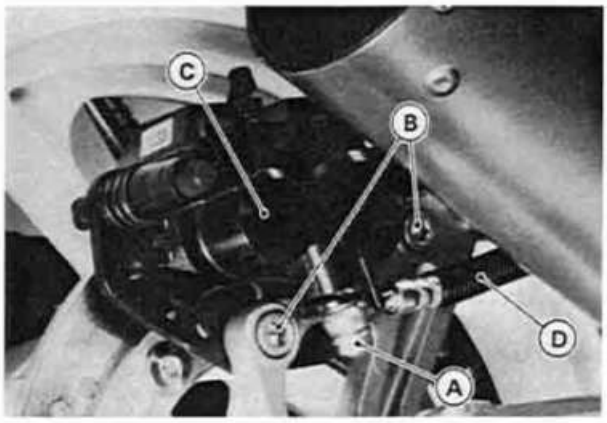
○Pump the brake lever or pedal to remove the caliper piston.

NOTE

○*Immediately wipe up any brake fluid that spills.*

Rear Caliper Removal

●Remove the rear caliper is the same way to the front caliper.



A. Banjo Bolt
B. Caliper Mounting Bolts
C. Caliper
D. Brake Hose

Caliper Installation Notes

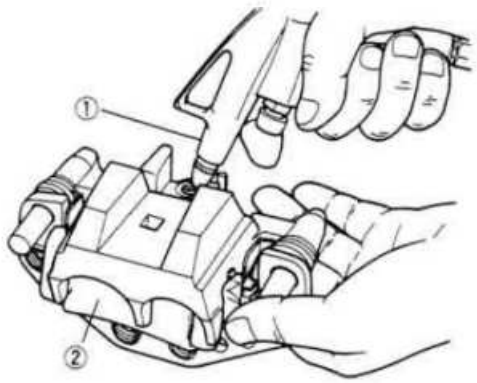
See the Base Manual, noting the following.

WARNING

○**Do not attempt to drive the motorcycle until a full brake lever or pedal is obtained by pumping the brake lever or pedal until the pads are against the disc. The brakes will not function on the first application of the lever or pedal if this is not done.**

Caliper Disassembly Notes

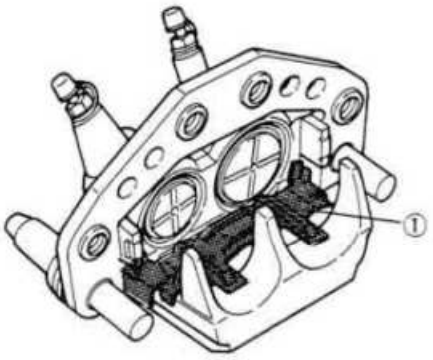
See the Base Manual, noting the following.



1. Apply compressed air.
2. Cloth

Caliper Assembly Notes

See the Base Manual, noting the following.

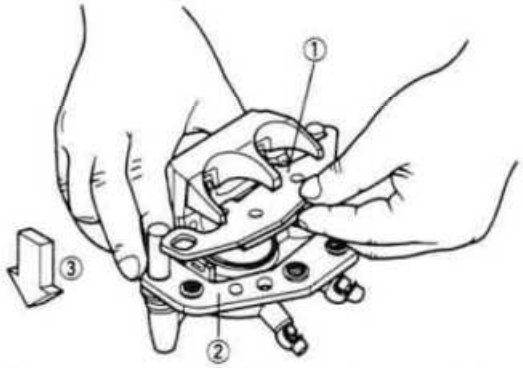


1. Anti-rattle Spring

Brake Pads

Pad Removal

See the Base Manual, noting the following.



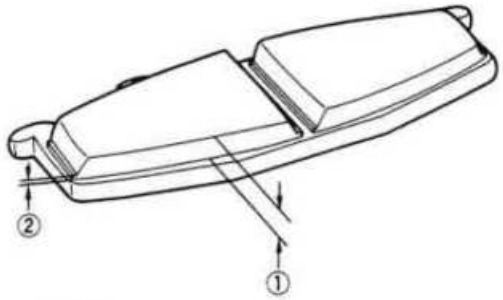
1. Pad
2. Caliper Holder
3. Push the caliper holder.

Lining Wear

★If the lining thickness of either pad is less than the service limit, replace both pads in the caliper as a set.

Pad Lining Thickness

Standard:	**4.35 mm**
Service Limit:	**1 mm**



1. Lining Thickness
2. Service Limit

Master Cylinder

Rear Master Cylinder Removal

See the Base Manual, noting the following.

○Remove the right side cover.

Rear Master Cylinder Installation Notes

See the Base Manual, noting the following.

○Tighten the rear master cylinder mounting bolts to the specified torque (see Exploded View).

Reservoir Removal Notes

See Reservoir Disassembly Notes in the Base Manual.

Reservoir Installation Notes

See Reservoir Assembly Notes in the Base Manual.

Brake Discs

Disc Wear

See the Base Manual, noting the following.

Front Disc Thickness

Standard:	**4.3 – 4.6 mm**
Service Limit:	**4.0 mm**

Disc Warp

See the Base Manual, noting the following.

○When measuring the front disc runout, remove the lower fairing and raise the front wheel off the ground with the jack stand (special tool: 57001-1238).

WARNING

○Be sure to set the stand so that it rests on the straight portion of the down tubes.

Disc Runout

Standard:	**Under 0.1 mm**

Brake Fluid

Brake Fluid Change

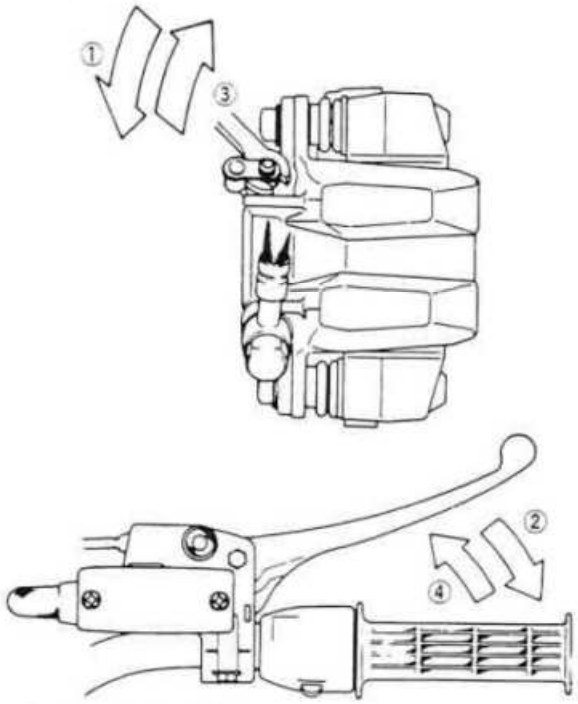
See the Base Manual, noting the following.

Changing Brake Fluid:

NOTE

○*The procedure to change the front brake fluid is as follows. Changing the rear brake fluid is the same as for the front brake.*

- Remove the reservoir cap, and remove the rubber cap on the bleed valve.
- Attach a clear plastic hose to the bleed valve on the caliper, and run the other end of the hose into a container.
- Change the brake fluid as follows.



1. Open the bleed valve.
2. Apply the brake and hold it.
3. Close the bleed valve.
4. Release the brake.

○Repeat this operation until fresh brake fluid comes out from the plastic hose or the color of the fluid changes.

NOTE

○*The fluid level must be checked often during the changing operation and replenished with fresh brake fluid. If the fluid in the reservoir runs almost out any time during changing operation, the bleeding operation must be done since air will have entered the brake line.*

○*Front Brake: Repeat the above steps one more time for the other caliper.*

○*Rear Brake: Repeat the above steps one more time for the other bleed valve.*

- Remove the clear plastic hose.
- Tighten the bleed valves to the specified torque (see Exploded View), and install the rubber caps.
- After changing is done, check the brake for weak braking power, brake drag, and fluid leakage.

★If necessary, bleed the air from the lines.

Bleeding the Brake Line

See the Base Manual, noting the following.

NOTE

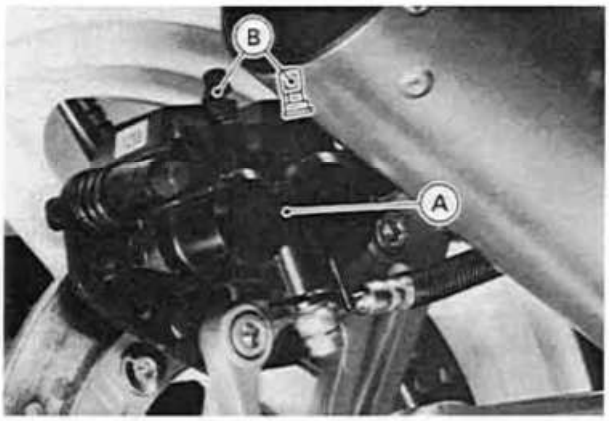
○*Tap the brake hose lightly from the caliper to the reservoir for easier bleeding.*

Bleeding the Rear Brake Line:

See the Base Manual, noting the following.

NOTE

○*As the rear brake caliper has two bleed valves, air bleeding must be operated for each valve.*



A. Rear Brake Caliper B. Bleed Valves

- Remove the clear plastic hose.
- Tighten the bleed valves to the specified torque (see Exploded View), and install the rubber caps.
- After bleeding is done, check the brake for weak braking power, brake drag, and fluid leakage.

Bleeding the Front Brake Line:

See the Base Manual, noting the following.

This model has no bleed valves on the anti-dive unit and junction block.

NOTE

○*Bleeding the front brake line is the same as for the rear brake.*

○*Repeat the bleeding steps one more time for the other caliper.*

Brake Hose

Brake Hose Removal/Installation Notes

- When removing the brake hose, take care not to spill the brake fluid on the frame or other painted parts.
- When removing the brake hose, temporarily secure the end of the brake hose to some high place to keep fluid loss to a minimum.

CAUTION

○**Brake fluid quickly ruins painted or plated surfaces; any spilled fluid should be completely wiped up immediately.**

- There is a flat washer on each side of the brake hose fitting. Replace them with new ones when installing it.
- When installing the hoses, avoid sharp bending, kinking, flattening or twisting, and route the hoses according to the Hose Routing section in the General Information chapter.
- Tighten the banjo bolts at the hose fittings to the specified torque (see Exploded View).
- Bleed the brake line after installing the brake hose (see Bleeding the Brake Line).

Brake Hose Inspection

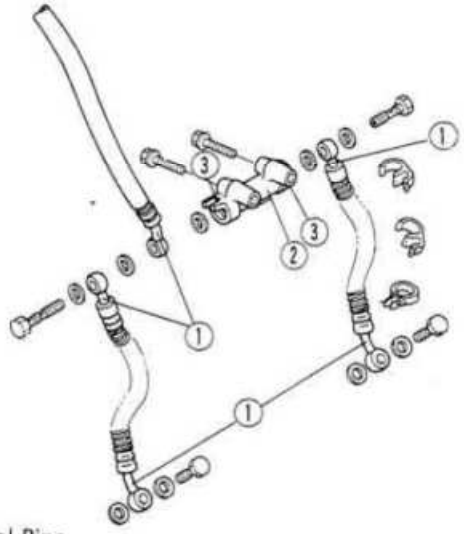
- The high pressure inside the brake line can cause fluid to leak or the hose to burst if the line is not properly maintained. Bend and twist the rubber hose while examining it.

★Replace it if any cracks or bulges are noticed.

Brake Hose Replacement

See the Base Manual, noting the following.

Brake Hose Installation



1. Metal Pipe
2. Joint
3. Notch

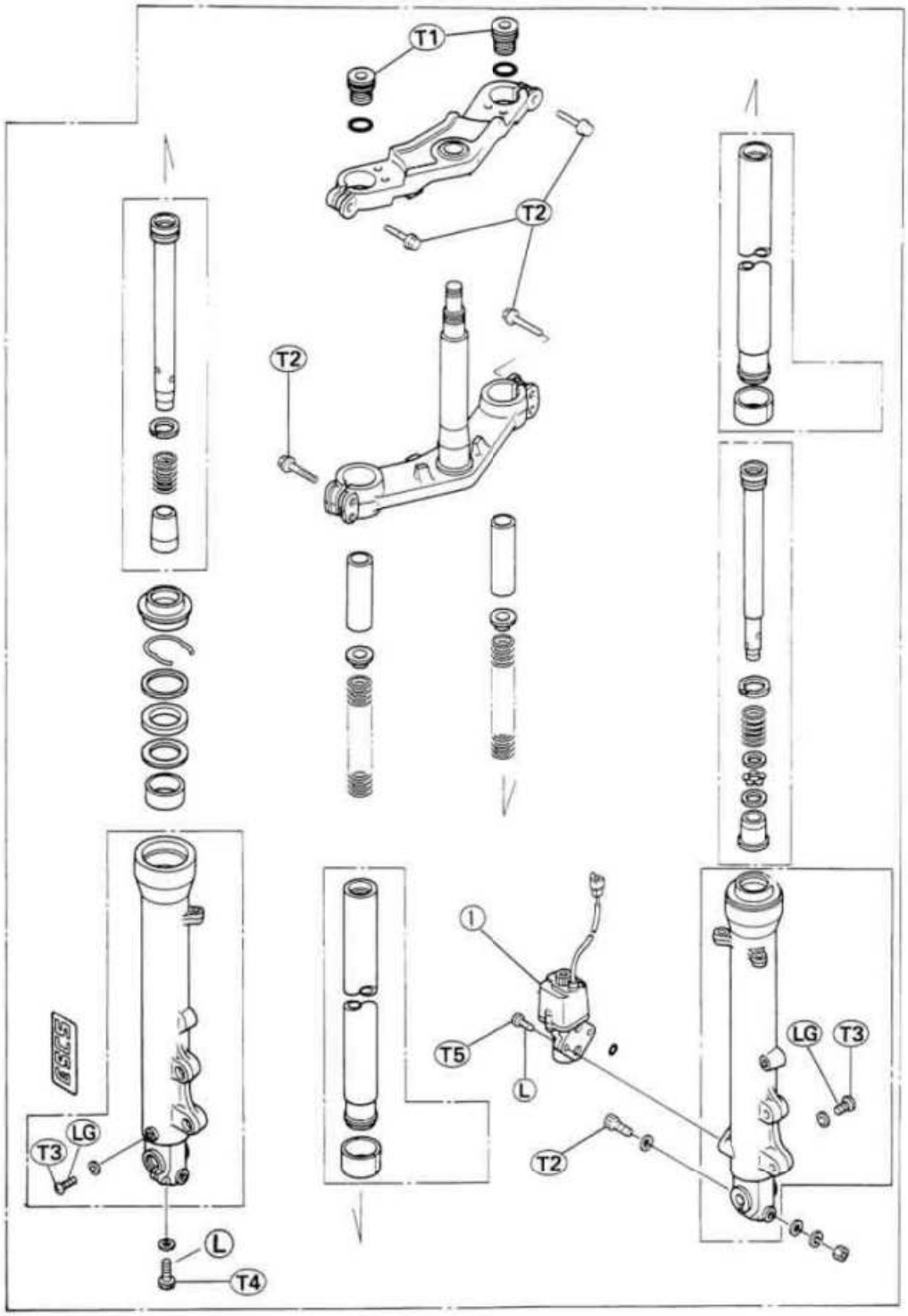
Suspension

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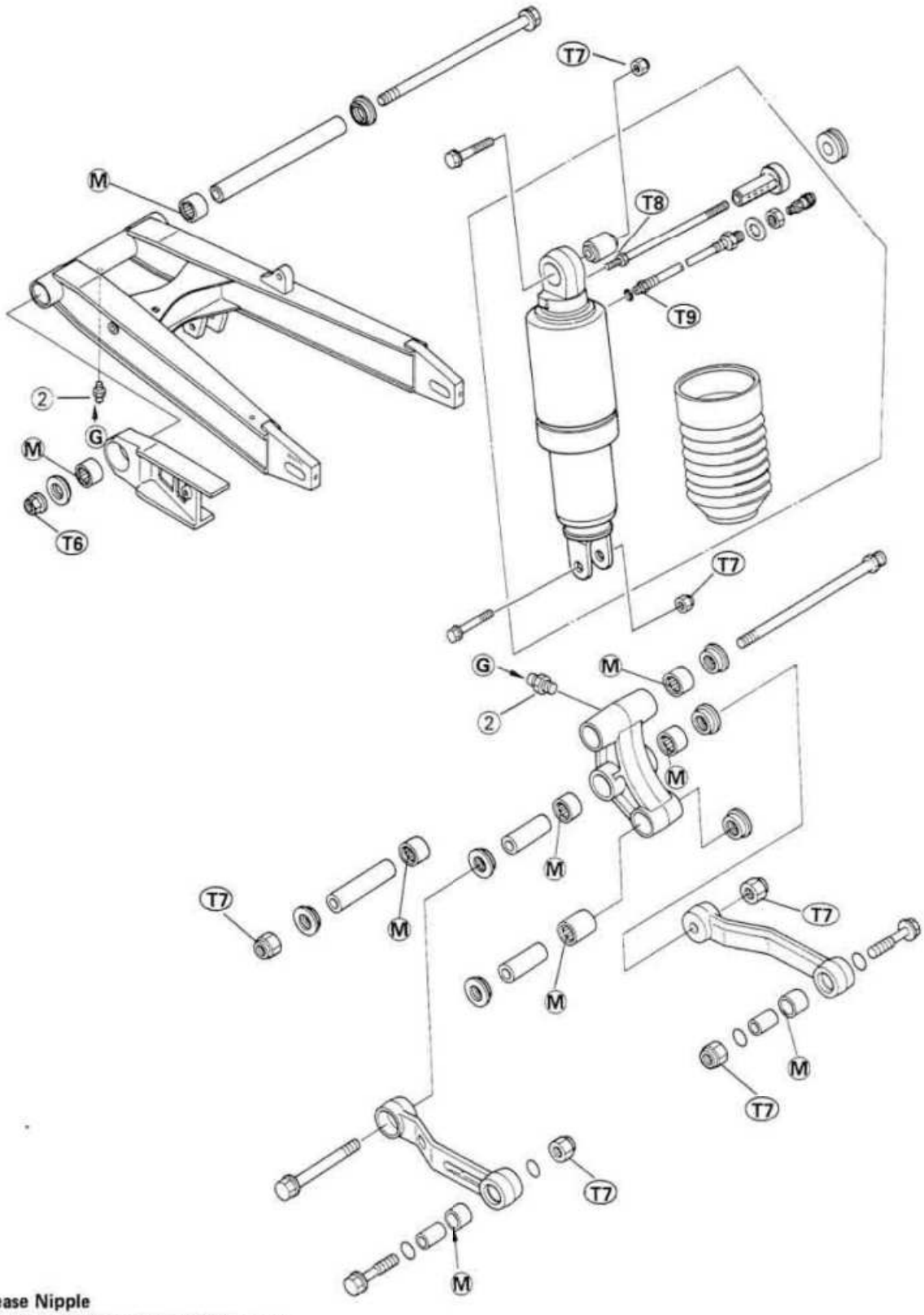
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*.....Refer to Base Manual

Exploded View



1. ESCS Unit
LG: Apply liquid gasket to the threads.
L : Apply a non-permanent locking agent to the threads.
T1: 22.5 N-m (2.25 kg-m, 16.4 ft-lb)
T2: 20.5 N-m (2.05 kg-m, 14.9 ft-lb)
T3: 1.5 N-m (0.15 kg-m, 13 in-lb)
T4: 39 N-m (4.0 kg-m, 29 ft-lb)
T5: 6.9 N-m (0.7 kg-m, 61 in-lb)



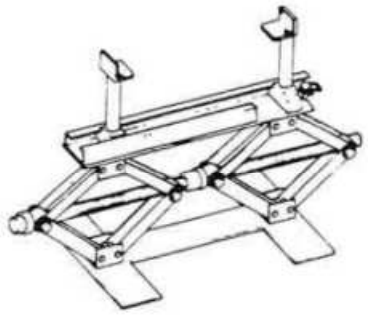
2. Grease Nipple
G : Force molybdenum disulfide grease.
M : Apply molybdenum disulfide grease.
T6: 93 N-m (9.5 kg-m, 69 ft-lb)
T7: 49 N-m (5.0 kg-m, 36 ft-lb)
T8: 0.5 N-m (0.05 kg-m, 4 in-lb)
T9: 12.5 N-m (1.25 kg-m, 8.9 ft-lb)

Specifications

Item	Standard	Service Limit
Front Fork:		
ESCS adjuster position	1 of 3 positions	– – –
Fork air pressure	0 (Atmospheric Pressure)	– – –
Fork oil capacity: Left	311 ±4 mL (when assembling)	– – –
	approx. 265 mL (when changing oil)	– – –
Right	356 ±4 mL (when assembling)	– – –
	approx. 305 mL (when changing oil)	– – –
Fork oil level: Left	182 ±2 mm	
	(fully compressed without fork spring)	– – –
Right	154 ±2 mm	
	(fully compressed without fork spring)	– – –
Fork spring free length	481.2 mm	472 mm
Rear Suspension:		
Rear shock absorber air pressure	0 (Atmospheric Pressure)	– – –
	(Usable Range)	
	0 – 196 kPa (0 – 2.0 kg/cm^2, 28 psi)	
Rear shock absorber damper adjuster position	2 of 4 positions	– – –

Special Tools

Jack Stand: 57001-1238



Front Fork Cylinder Holder Handle: 57001-183



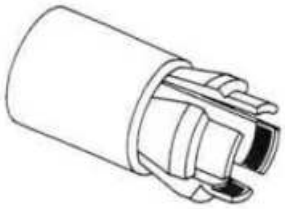
Front Fork Cylinder Holder Adapter: 57001-1057



Front Fork Outer Tube Weight: 57001-1218



Front Fork Oil Seal Driver: 57001-1219



Bearing Driver Set: 57001-1129



Front Fork

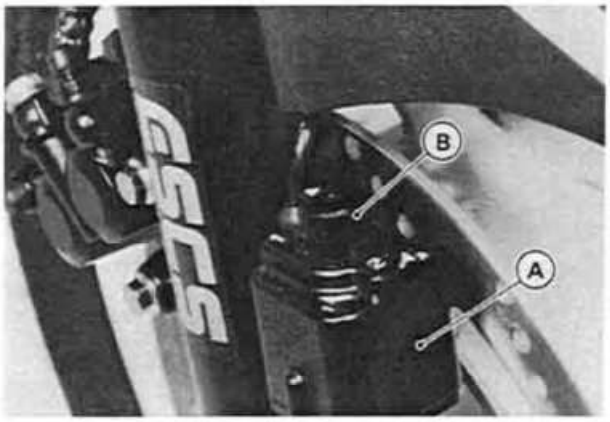
ESCS (Electric Suspension Control System) Adjustment

●The ESCS adjuster on the right fork leg can be adjusted for 3 positions.

ESCS Adjuster

Position	1	2	3
Damping Force	Soft	Moderate	Strong

*Standard Position is 1.



A. ESCS Unit B. Adjuster

Air Pressure Adjustment

●Using the jack stand (special tool: 57001-1238), raise the front wheel off the ground.
●Remove the air valve cap and push the air valve to open.
●Install the air valve cap.

Air Pressure

Standard:	**Atmospheric pressure**
Usable Range:	——

NOTE

○*Addition of air pressure is not recommended since atmospheric pressure is the most suitable setting for all ranges of riding.*

Fork Oil Change

●Refer to the Base Manual, noting the following.

●*Pour in the type and amount of fork oil specified.*

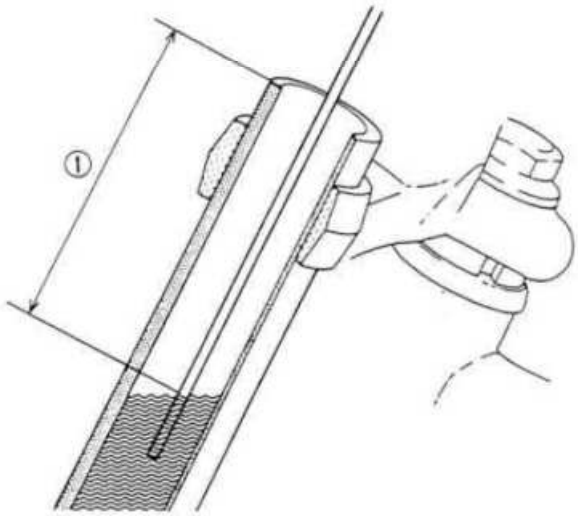
Front Fork Oil

Viscosity	**SAE 10W20**
Capacity:	
Left	**311 ±4 mL (when assembling)** **Approx. 265 mL** **(when changing oil)**
Right	**356 ±4 mL (when assembling)** **Approx. 305 mL** **(when changing oil)**

NOTE

○*Pump the fork to expel the air from the upper and lower chambers.*

●With the fork fully compressed, insert a tape measure or rod into the inner tube, and measure the distance from the top of the inner tube to the oil.



1. Oil Level

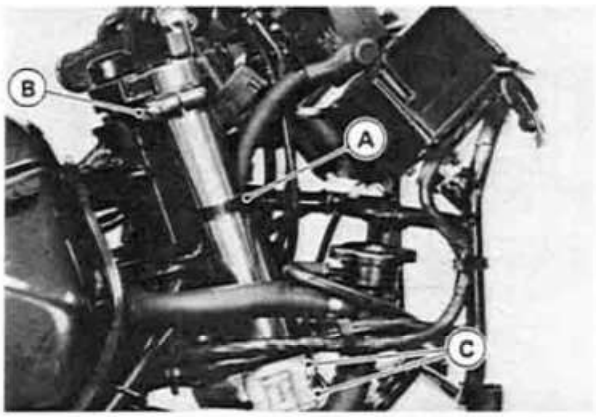
Fork Oil Level (Fully Compressed without Fork Spring)

Left	**182 ±2 mm**
Right	**154 ±2 mm**

★If the oil is above or below the specified level, remove or add oil and recheck the oil level.
●Change the oil of the other fork leg in the same manner.

Front Fork Removal (each fork leg)

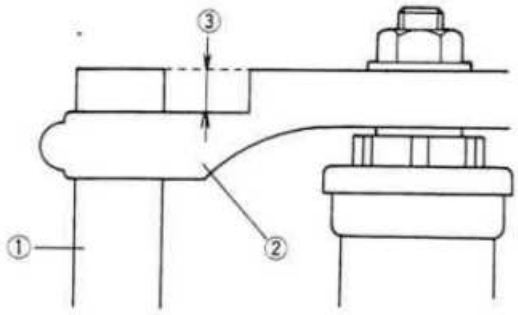
- Remove the following.
  - Speedometer Cable Lower End
  - Caliper Mounting Bolts
    - (Caliper on the fork leg to be removed.)
  - Lower Fairing
  - Front Wheel (see the Wheels/Tires chapter)
  - Front Fender (see the Frame chapter)
  - Upper Fairing (see the Frame chapter)
- Disconnect the ESCS lead connector if the right hand fork leg is removed.
- Remove the caps and mounting Allen bolts, and slide the handlebar holder out of the place.
- Remove the hose or harness clamp.
- Loosen the upper and lower fork clamp bolts.
- With a twisting motion, work the fork leg down and out.



A. Clamp
B. Upper Fork Clamp Bolts
C. Lower Fork Clamp Bolts

Front Fork Installation Notes (each fork leg)

- Installation is the revers of removal (refer to the appropriate chapters).
- Route the cables, hoses and harnesses according to the Cable, Hose and Wire Routing section in the General Information chapter.
- Install the fork so that the top end of the inner tube projects 16.0 – 17.5 mm from the upper surface of the fork clamps.



1. Inner Tube
2. Fork Clamps
3. 16.0 – 17.5 mm

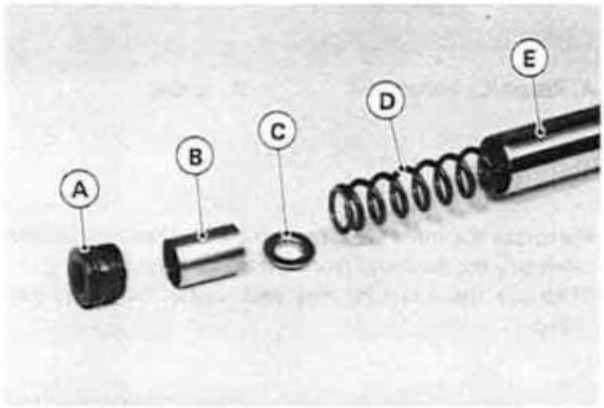
- Tighten the following to the specified torque (see Exploded View).
  - Lower Fork Clamp Bolts
  - Upper Fork Clamp Bolt
  - Handlebar Holder Mounting Bolts
    - (see the Steering chapter)
  - Front Axle Nut (see the Wheels/Tires chapter)
  - Axle Clamp Bolt
  - Caliper Mounting Bolts (see the Brakes chapter)
- Check the front brake operation after installation.

WARNING

○Do not attempt to drive the motorcycle until a full brake lever is obtained by pumping the brake lever until the pads are against the disc. The brake will not function on the first application of the lever if this is not done.

Front Fork Disassembly

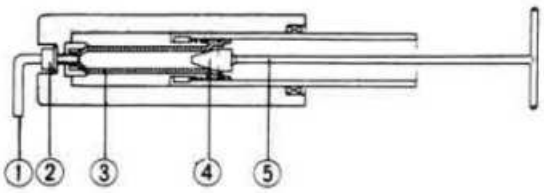
- Remove the caps and mounting Allen bolts, and slide the handlebar holder out of the place.
- Loosen the top plug.
- Remove the front fork.
- ○Remove the axle clamp bolt if the right hand fork leg is to be disassembled.
- Remove the top plug with O-ring, spacer, spring guide and spring.



A. Top Plug with O-ring
B. Spacer
C. Spring Guide
D. Spring
E. Fork Tube (inner)

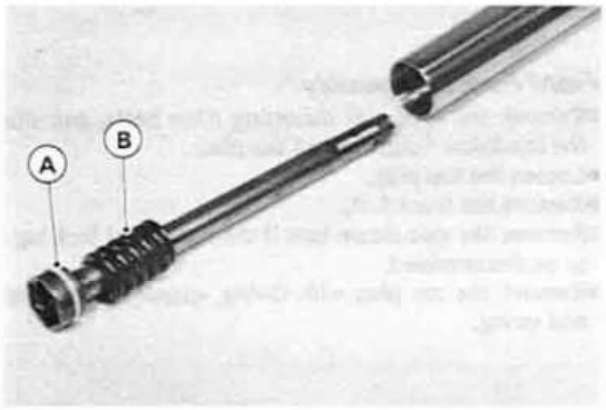
- Pour out the fork oil.
- Stop the cylinder from turning by using the front fork cylinder holder handle and adapter (special tools). Unscrew the Allen bolt, and take the bolt and gasket out of the bottom of the outer tube.

Allen Bolt Installation/Removal



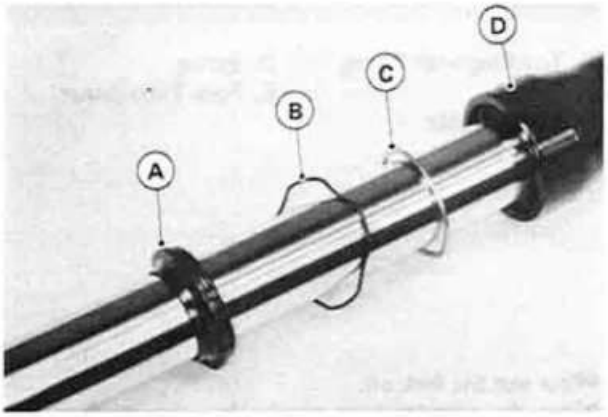
1. Allen Wrench
2. Allen Bolt
3. Piston/Cylinder Unit
4. Adapter: 57001-1057
5. Front Fork Cylinder Holder Handle: 57001-183

•Remove the piston/cylinder unit and the spring from the top of the front fork tube.



A. Piston/Cylinder Unit B. Spring

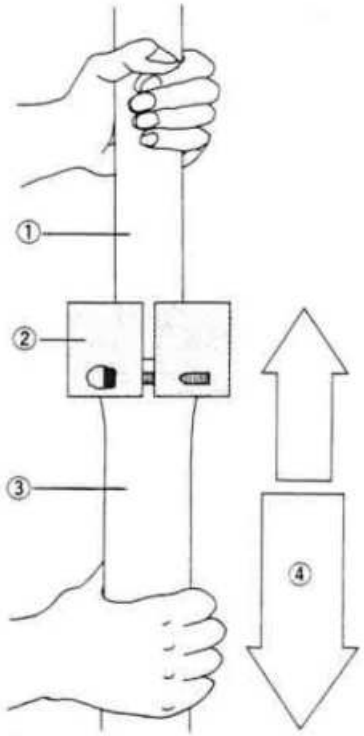
•Separate the inner tube from the outer tube as follows.
○Remove the dust seal from the outer tube.
○Remove the retaining ring and washer from the outer tube.



A. Dust Seal C. Washer
B. Retaining Ring D. Outer Tube

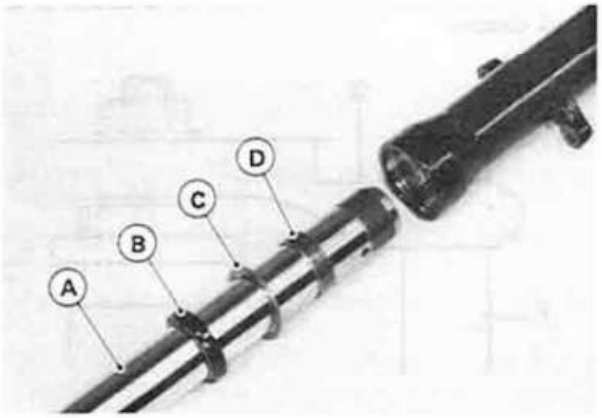
○Mount the front fork outer tube weight (special tool) on the top of the outer tube, by fitting the step of the weight (special tool) to the top corner of the outer tube.
○Holding the inner tube by hand in a vertical position, stroke the outer tube up and down several times and pull it down. This shock to the fork leg separates the outer tube from the inner tube.

Front Fork Separation



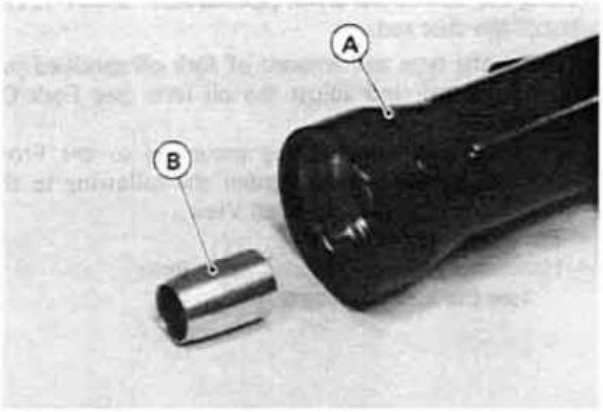
1. Inner Tube
2. Front Fork Outer Tube Weight: 57001-1218
3. Outer Tube
4. Stroke

•Remove the oil seal, washer and outer tube guide bush from the top of the inner tube.



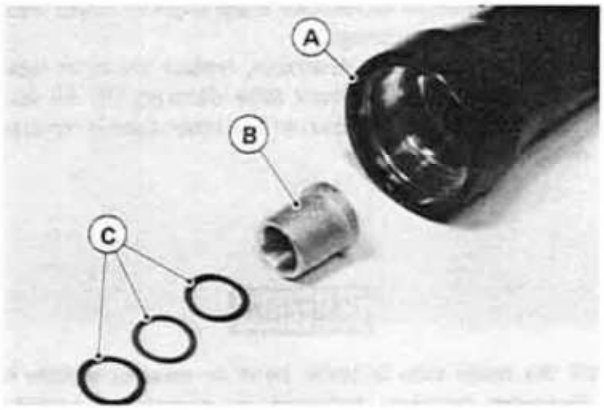
A. Inner Tube C. Washer
B. Oil Seal D. Outer Tube Guide Bush

•Take the cylinder base out of the bottom of the outer tube.



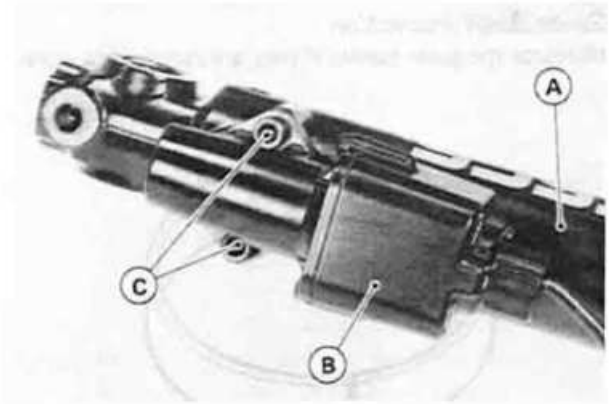
A. Outer Tube (Left Fork Leg) B. Cylinder Base

○For the right fork leg, take out not only the cylinder base but also the washers.



A. Outer Tube (Right Fork Leg) C. Washers
B. Cylinder Base

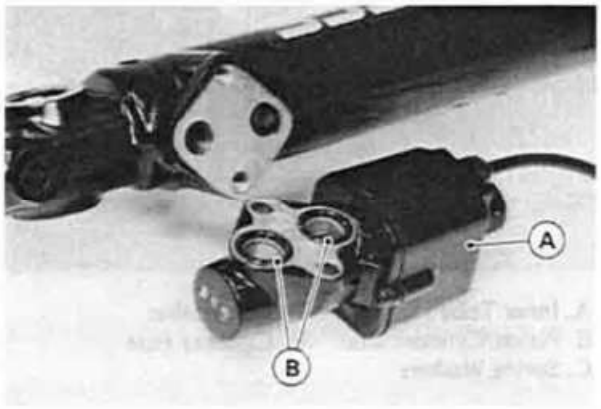
•Remove the mounting bolts, and take off the ESCS unit from the right fork leg outer tube.



A. Outer Tube (Right Fork Leg) C. Mounting Bolts
B. ESCS Unit

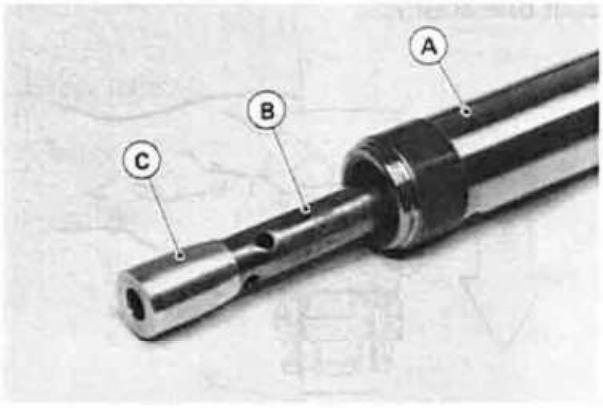
Front Fork Assembly Notes

•Assembly is the reverse of disassembly.
•Check the O-rings on the ESCS unit. Replace them with new ones if damaged.



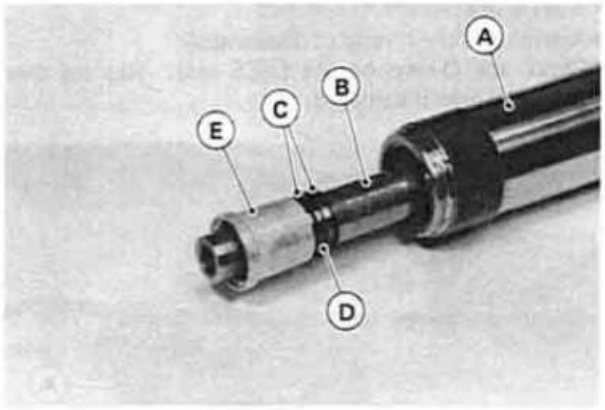
A. ESCS Unit B. O-rings

•Apply non-permanent locking agent to the threads of the ESCS unit mounting bolts, and tighten them to the specified torque (see Exploded View).
•Check the O-ring at the top plug. Replace it with a new one if damaged.
•Replace any oil seal removed with a new one.
•Replace the guide bushes with new ones.
•Insert the piston/cylinder unit and spring in the inner tube.
•For the left fork leg, insert the cylinder base in the piston/cylinder unit.



A. Inner Tube C. Cylinder Base
B. Piston/Cylinder Unit

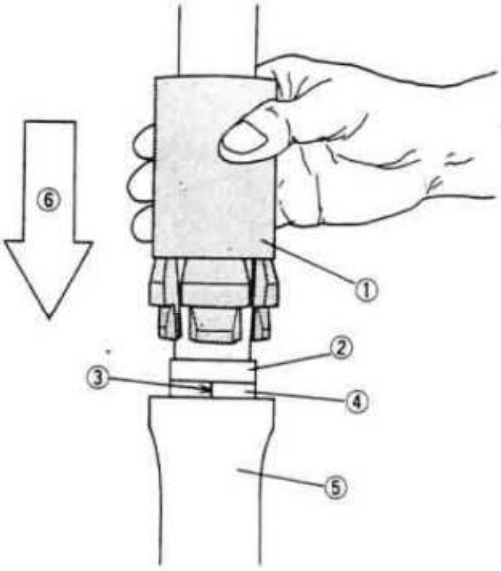
•For the right fork leg, insert the spring washer, flat washer, spring washer and the cylinder base in the piston/cylinder unit.



A. Inner Tube
B. Piston/Cylinder Unit
C. Spring Washers
D. Flat Washer
E. Cylinder Base

- Insert the inner tube and cylinder unit as a set into the outer tube.
- Replace the gasket with a new one.
- Apply a non-permanent locking agent to the threads of the bottom Allen bolt.
- Stop the cylinder from turning by using the front fork cylinder holder handle (special tool: 57001-183) and holder adapter (special tool: 57001-1057), tighten the Allen bolt to the specified torque (see Exploded View).
- When replacing the outer tube guide bush with a new one, hold the used guide bush against the new one, and tap the used guide bush with the front fork oil seal driver (special tool) until it stops. The slit in the bush must face toward the left or right.

Guide Bush Installation



1. Front Fork Oil Seal Driver: 57001-1219
2. Used Guide Bush
3. Slit (face toward the left or right)
4. New Guide Bush
5. Outer Tube
6. Tap

- After installing the washer, install the oil seal by using the fork oil seal driver (special tool: 57001-1219).
- Using the fork oil seal driver (special tool: 57001-1219), install the dust seal.
- Pour in the type and amount of fork oil specified (see Specifications), and adjust the oil level (see Fork Oil Change).
- After installing the fork leg according to the Front Fork Installation Notes, tighten the following to the specified torque (see Exploded View).
  Fork Top Plug
  Handlebar Holder Mounting Allen Bolts
  (see the Steering chapter)

Inner Tube Inspection

★If the inner tube is damaged, replace it.

- Nicks or rust damage can sometimes be repaired by using a wet-stone to remove sharp edges or raised areas which cause seal damage.

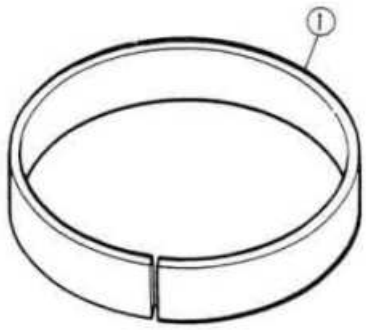
★If the damage is not repairable, replace the inner tube. Since damage to the inner tube damages the oil seal, replace the oil seal whenever the inner tube is repaired or replaced.

CAUTION

○**If the inner tube is badly bent or creased, replace it. Excessive bending, followed by subsequent straightening, can weaken the inner tube.**

Guide Bush Inspection

★Replace the guide bushes if they are damaged or worn.

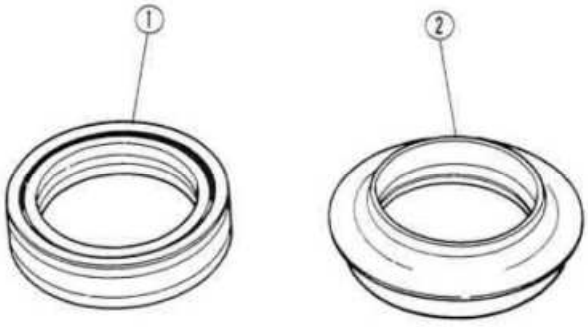


1. Guide Bush

Oil Seal and Dust Seal Inspection

★If the dust seal is damaged or worn, replace it.

●Replace the oil seal with a new one whenever it has been removed.



1. Oil Seal
2. Dust Seal

Spring Tension

★If the spring of either fork leg is shorter than the service limit, it must be replaced. If the length of a replacement spring and that of the remaining spring vary greatly, the remaining spring should also be replace in order to keep the fork legs balanced for motorcycle stability.



1. Fork Spring
2. Free Length

Fork Spring Free Length

Standard:	**481.2 mm**
Service Limit:	**472 mm**

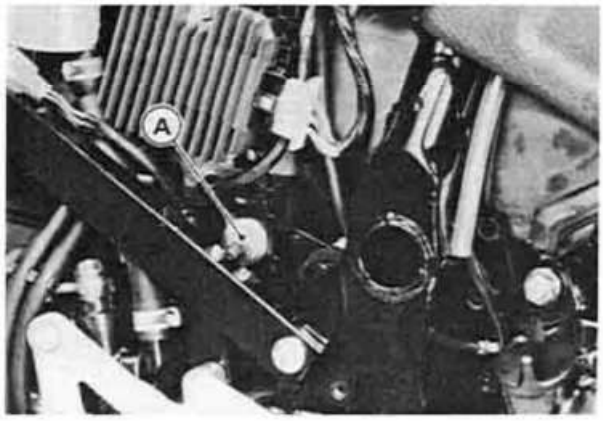
Rear Suspension (Uni-Trak)

Rear Shock Absorber:

Air Pressure Inspection

See the Base Manual, noting the following.

●Remove the right side cover.



A. Air Valve

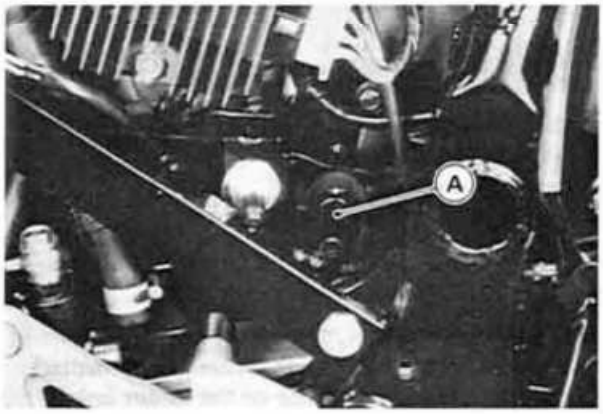
Air Shock Absorber Air Pressure

Air Pressure Usable Range kPa (kg/cm², psi)	Setting	Load	Road
Atmospheric Pressure	Soft	Light	Good
↕	↕	↕	↕
196 (2.0, 28)	Hard	Heavy	Bad

Damping Force Adjustment

See the Base Manual, noting the following.

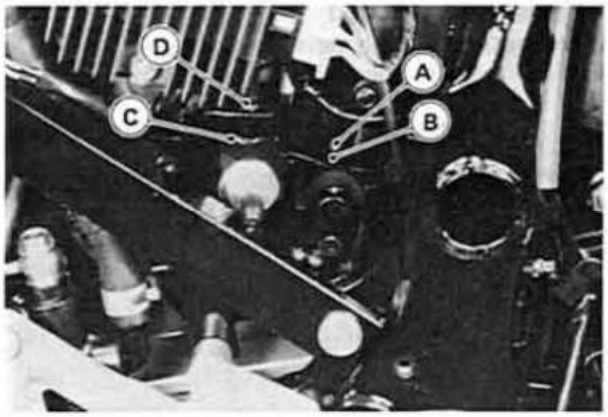
●Remove the right side cover.



A. Adjusting Stick

Rear Shock Absorber Removal

- Remove the side covers.
- Loosen the locknut, and unscrew the rod.
- Remove the air valve bracket mounting bolt.



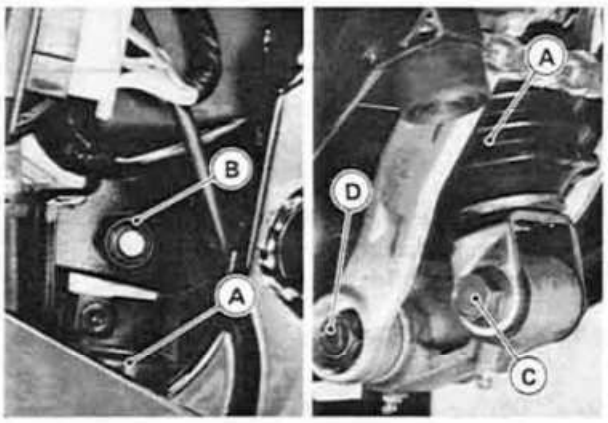
A. Locknut
B. Rod
C. Air Valve Bracket
D. Mounting Bolt

- Remove the shock absorber upper mounting nut.
- Remove the shock absorber lower mounting bolt.

CAUTION

○**When pulling out the mounting bolts, lift the rear wheel slightly. Forcing or tapping on a bolt could damage the bolt, sleeve, and bearing.**

- Remove the tie-rod lower mounting bolt.
- Pull out the shock absorber upper mounting bolt, and take the rear shock absorber down and out.

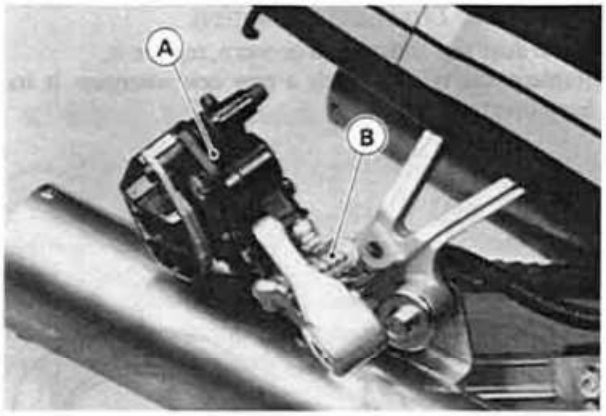


A. Shock Absorber
B. Upper Mounting Nut
C. Lower Mounting Bolt
D. Tie-Rod Lower Mounting Bolt

Swing Arm:

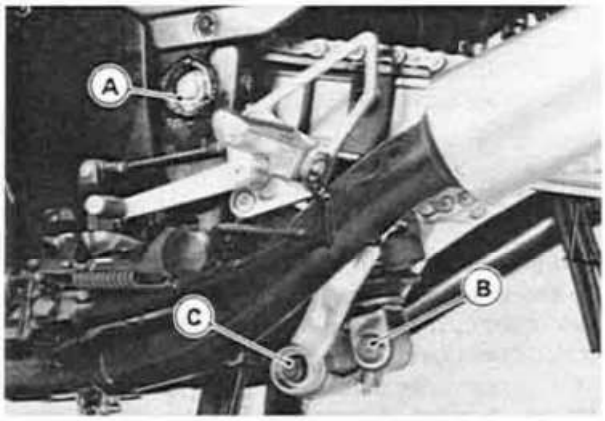
Swing Arm Removal

- Remove the rear wheel (see the Wheel/Tires chapter).
- Remove the brake hose clamp on the torque link.
- Remove the torque link rear bolt, and hang the caliper with brake holder on the rear footpeg.



A. Caliper with Brake Holder
B. Rear Footpeg

- Remove the following.
  Swing Arm Pivot Nut
  Shock Absorber Lower Mounting Bolt
  Tie-Rod Lower Mounting Bolt



A. Swing Arm Pivot Nut
B. Shock Absorber Lower Mounting Bolt
C. Tie-Rod Lower Mounting Bolt

- Pull out the swing arm pivot shaft, and take the swing arm down and out.
- Take off the chain guide and the hose guide clamp from the swing arm.

Swing Arm Installation Notes

See the Base Manual, noting the following.

○Route the hoses through the hose guide clamp (see the General Information chapter).

○Tighten the following to the specified torque (see Exploded View).
  Axle Nut (see the Wheel/Tires chapter)
  Torque Link Nuts (see the Brakes chapter)

○After torquing the axle nut, install a new cotter pin.

Swing Arm Needle Bearing Lubrication

See the Base Manual, noting the following.

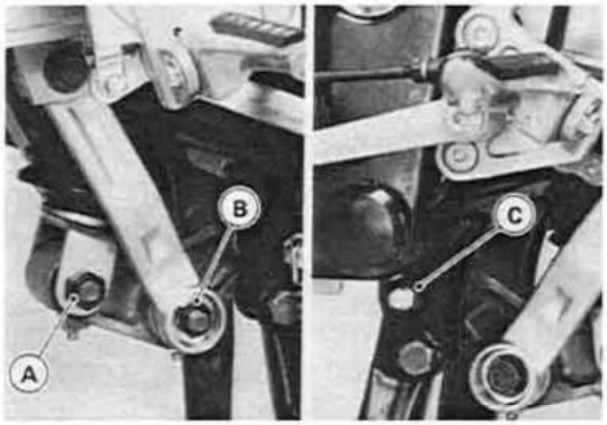
There is a grease nipple on the swing arm pivot for lubrication. Force molybdenum disulfide grease into the nipple until it comes out at both sides of the swing arm, and wipe off any excess.

Tie-Rod, Rocker Arm:

Rocker Arm Removal

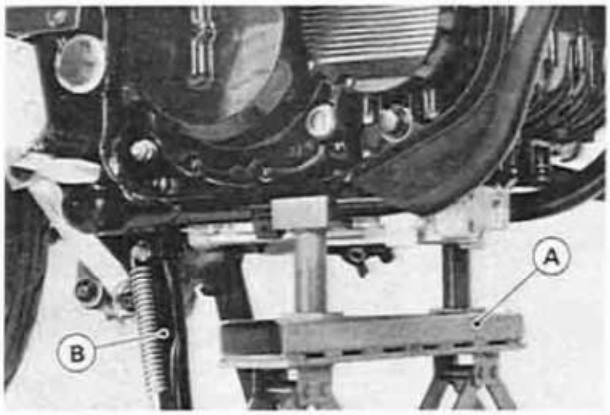
●Remove the following.
Rider's Seat
Knee Grip Covers
Fuel Tank
Lower Fairing
Upper Fairing
Coolant (Drain)
Radiator with Fan
Muffler

●Loosen the following.
Shock Absorber Lower Mounting Nut
Tie-Rod Lower Mounting Nut
Rocker Arm Pivot Nut



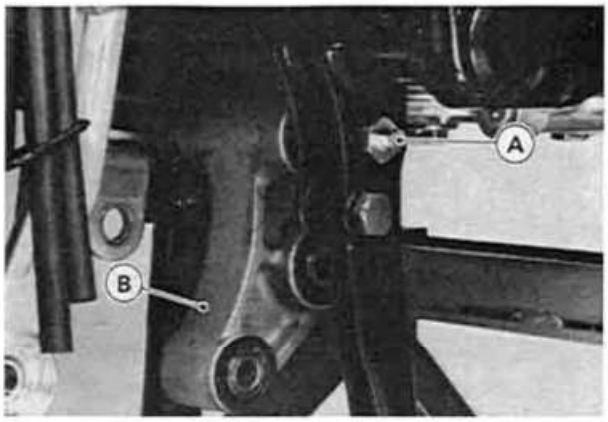
A. Shock Absorber Lower Mounting Nut
B. Tie-rod Lower Mounting Nut
C. Rocker Arm Pivot Nut

●Place the jack stand (special tool) under the engine, and raise the center stand off the ground.



A. Jack Stand: 57001-1238
B. Center Stand

●Retract the center stand, and remove its spring.
●Remove the following while lifting the rear wheel slightly.
Shock Absorber Lower Mounting Bolt
Tie-Rod Lower Mounting Bolt
●Remove the rocker arm pivot shaft, and take off the rocker arm.

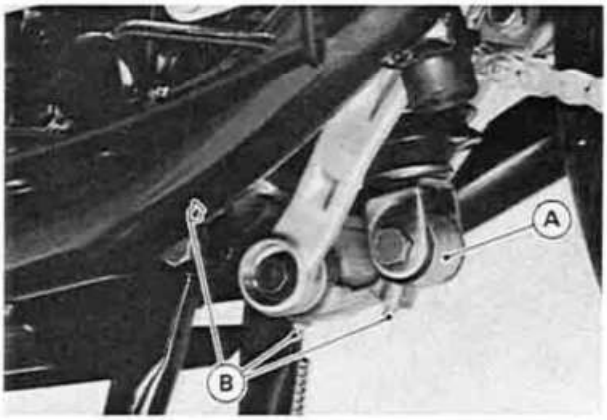


A. Rocker Arm Pivot Shaft
B. Rocker Arm

Tie-rod, Rocker Arm Needle Bearing Lubrication

See the Base Manual, noting the following.

○For the rocker arm needle bearing, there are grease nipples on the rocker arm for lubrication. Force molybdenum disulfide grease into the nipples until it comes out at both sides of the rocker arm, and wipe off any excess.



A. Rocker Arm
B. Grease Nipples

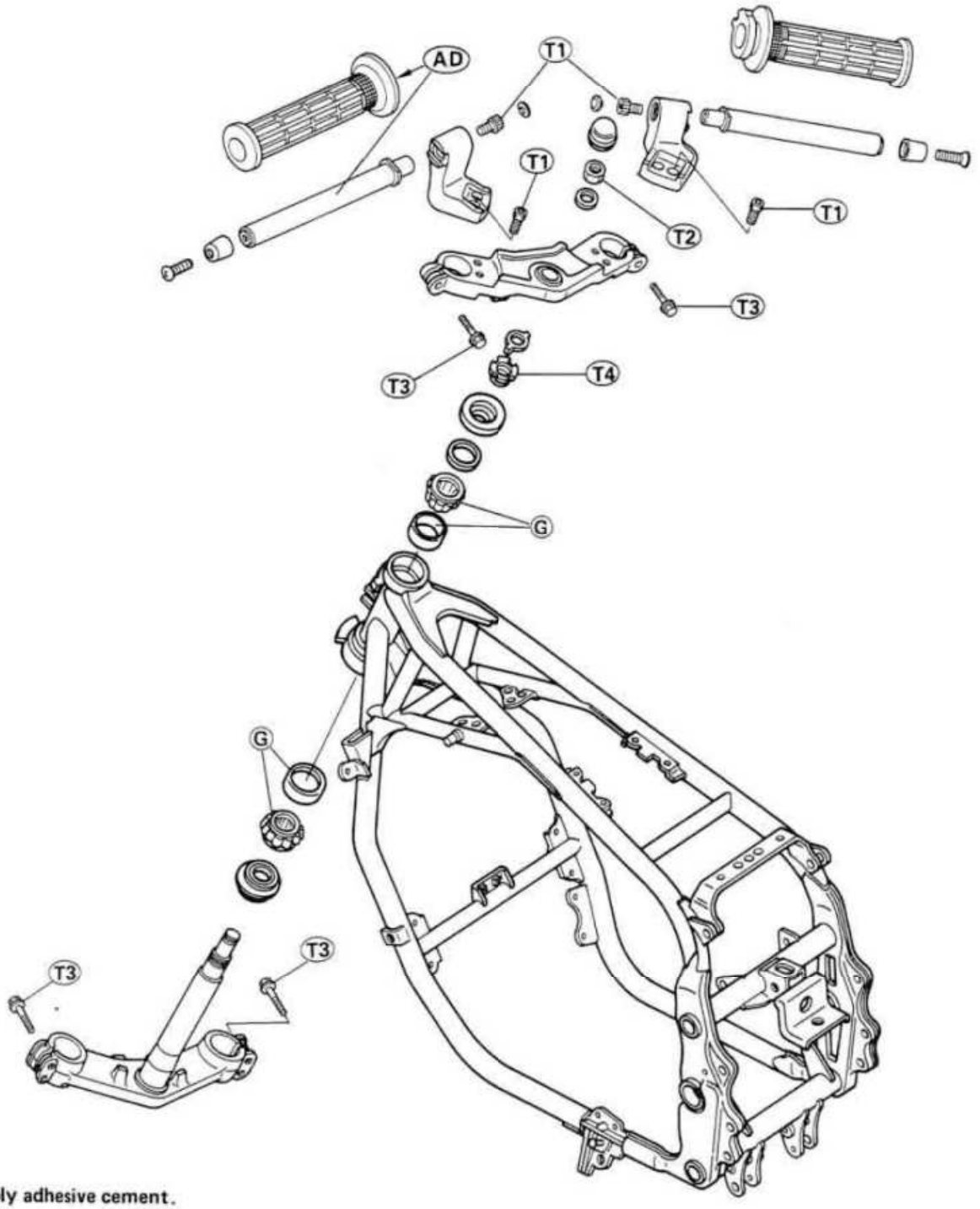
Steering

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  Stem Cap Deterioration, Damage ..... *
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*.....Refer to Base Manual

Exploded View

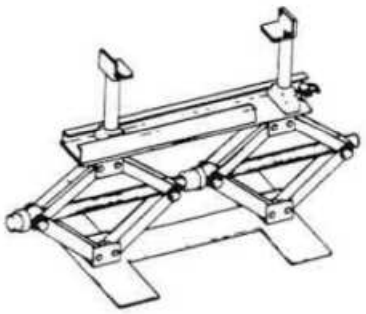


AD: Apply adhesive cement.
G : Apply grease.
T1: 22.5 N-m (2.25 kg-m, 16.4 ft-lb)
T2: 39 N-m (4.0 kg-m, 29 ft-lb)
T3: 20.5 N-m (2.05 kg-m, 14.9 ft-lb)
T4: Hand-tighten (about 4.9 N-m, 0.5 kg-m, 43 in-lb)

Special Tool

See the Base Manual, adding the following.

Jack Stand: 57001-1238



Steering Adjustment

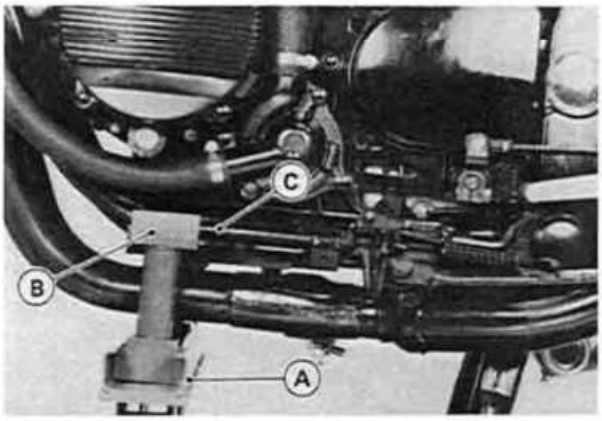
Steering Inspection

See the Base Manual, noting the following.

○Place the jack stand (special tool) under the engine, and raise the front wheel off the ground.

WARNING

○**Be sure to set the stand so that it lifts the straight portion of the down tubes. If the stand supports the curved part of the frame, the motorcycle may fall.**



A. Jack Stand: 57001-1238
B. Rest
C. Down Tube

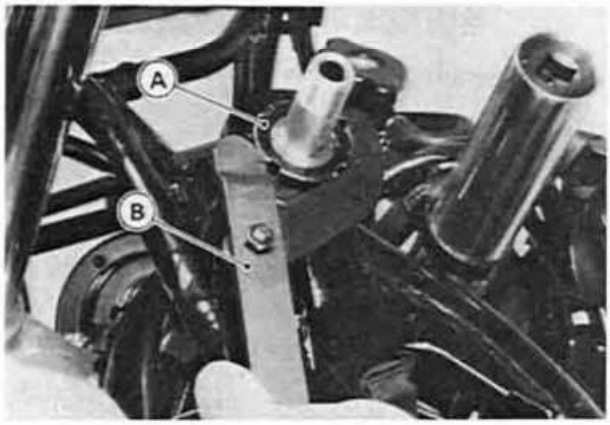
Steering Adjustment

●Remove the following.
Lower Fairing
Rider's Seat
Knee Grip Covers
Upper Fairing
Fuel Tank
Handlebars (with Hose and Cables)
Stem Head Cap
Stem Head Nut
Flat Washer
Stem Head
Lockwasher

●Place the jack stand (special tool: 57001-1238) under the engine, and raise the front wheel off the ground (see Steering Inspection).

●Using the stem nut wrench (special tool), adjust the steering.

○If the steering is too tight, loosen the stem locknut a fraction of a turn; if the steering is too loose, tighten the locknut a friction of a turn. In either case, turn the locknut about 1/8 turn maximum at a time, and check the steering each time.



A. Stem Locknut
B. Stem Nut Wrench: 57001-1100

●After installing the lockwasher, stem head and flat washer, tighten the steering stem head nut to the specified torque (see Exploded View).

●Make sure that the top ends of the both inner tubes project 15 mm from the upper surface of fork clamps.

●Tighten the following to the specified torque (see Exploded View).
Upper Fork Clamp Bolts (see the Suspension chapter)
Handlebar Mounting Bolts

●Check the steering again.

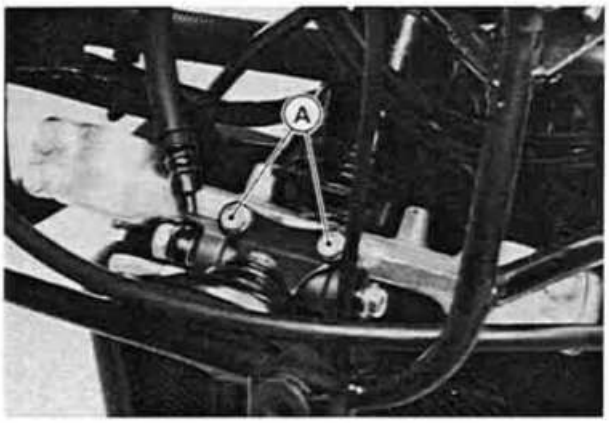
★If the steering is still too tight or too loose, repeat the above adjustment.

●Install the parts removed.

Steering Removal/Installation

Steering Stem Removal

●Remove the following.
Speedometer Cable Lower End
Caliper Mounting Bolts
Lower Fairing
Front Wheel (see the Wheels/Tires chapter)
Front Fender (see the Frame chapter)
Upper Fairing (see the Frame chapter)
Front Fork Legs (see the Suspension chapter)
Brake Hose Joint and Horn Mounting Bolts



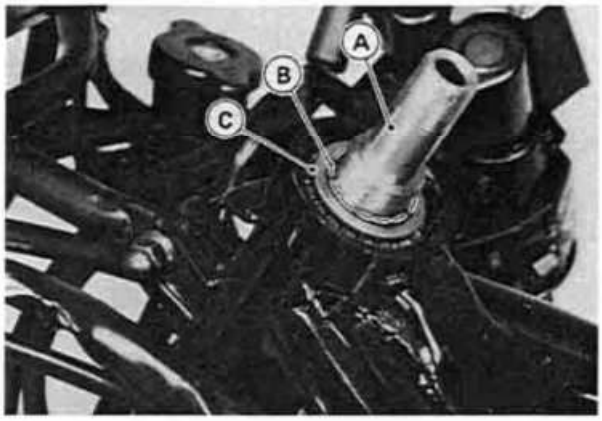
A. Brake Hose Joint and Horn Mounting Bolts

Fuel Tank (see the Fuel System chapter)
Stem Head Cap
Stem Head Nut
Flat Washer
Stem Head
Lockwasher

●Push up on the stem base, and remove the steering stem locknut with the stem cap using the stem nut wrench (special tool: 57001-1100).
●Remove the O-ring, and lower the steering stem and steering base (single unit) out of the steering pipe.
●See the Base Manual.

Steering Stem Installation

See the Base Manual, noting the following.
○Replace the grease seal under the lower taper roller bearing inner race with a new one.
○Replace the O-ring on the upper tapered roller bearing inner race with a new one.



A. Steering Stem
B. O-ring
C. Upper Tapered Roller Bearing Inner Race

Frame

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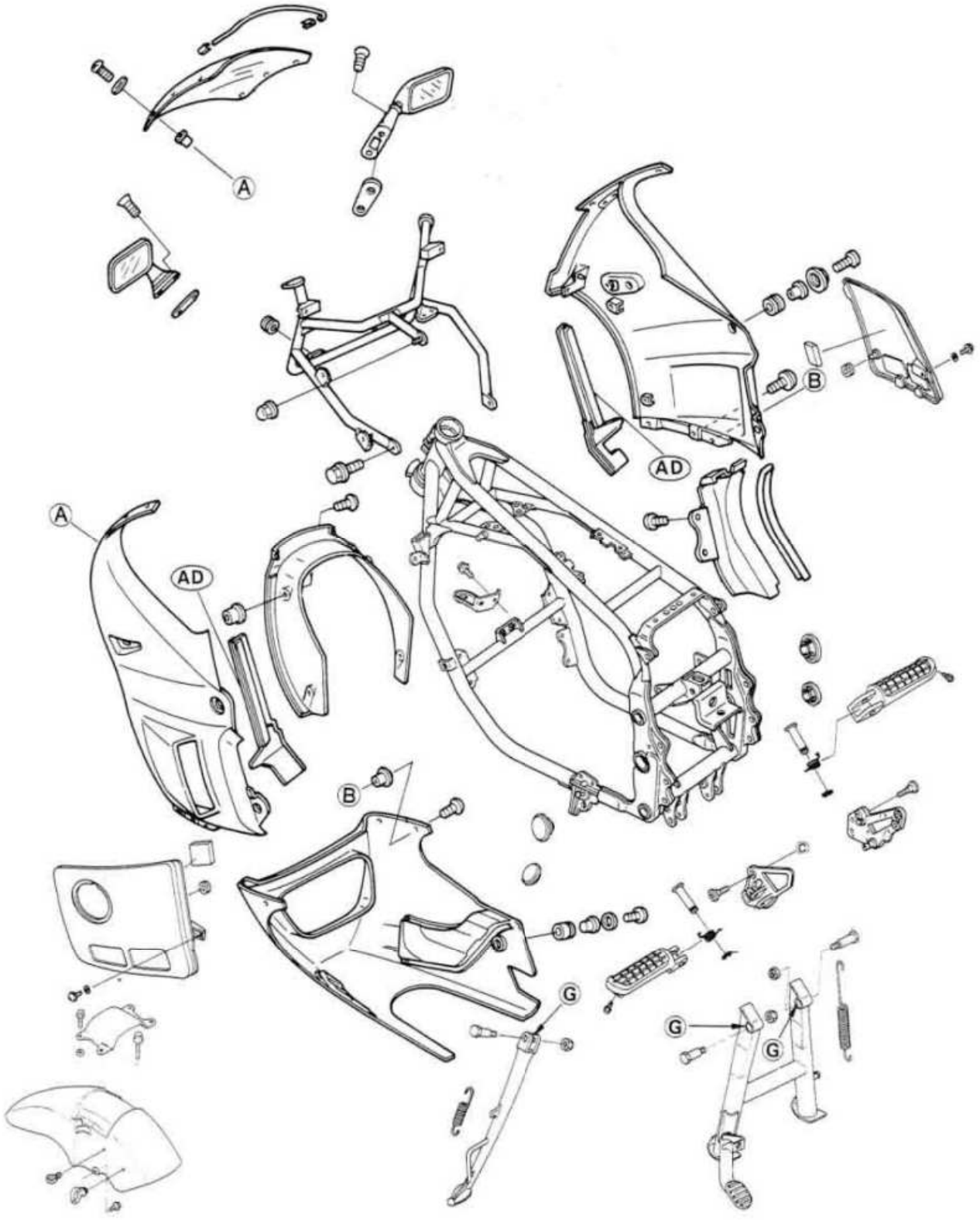
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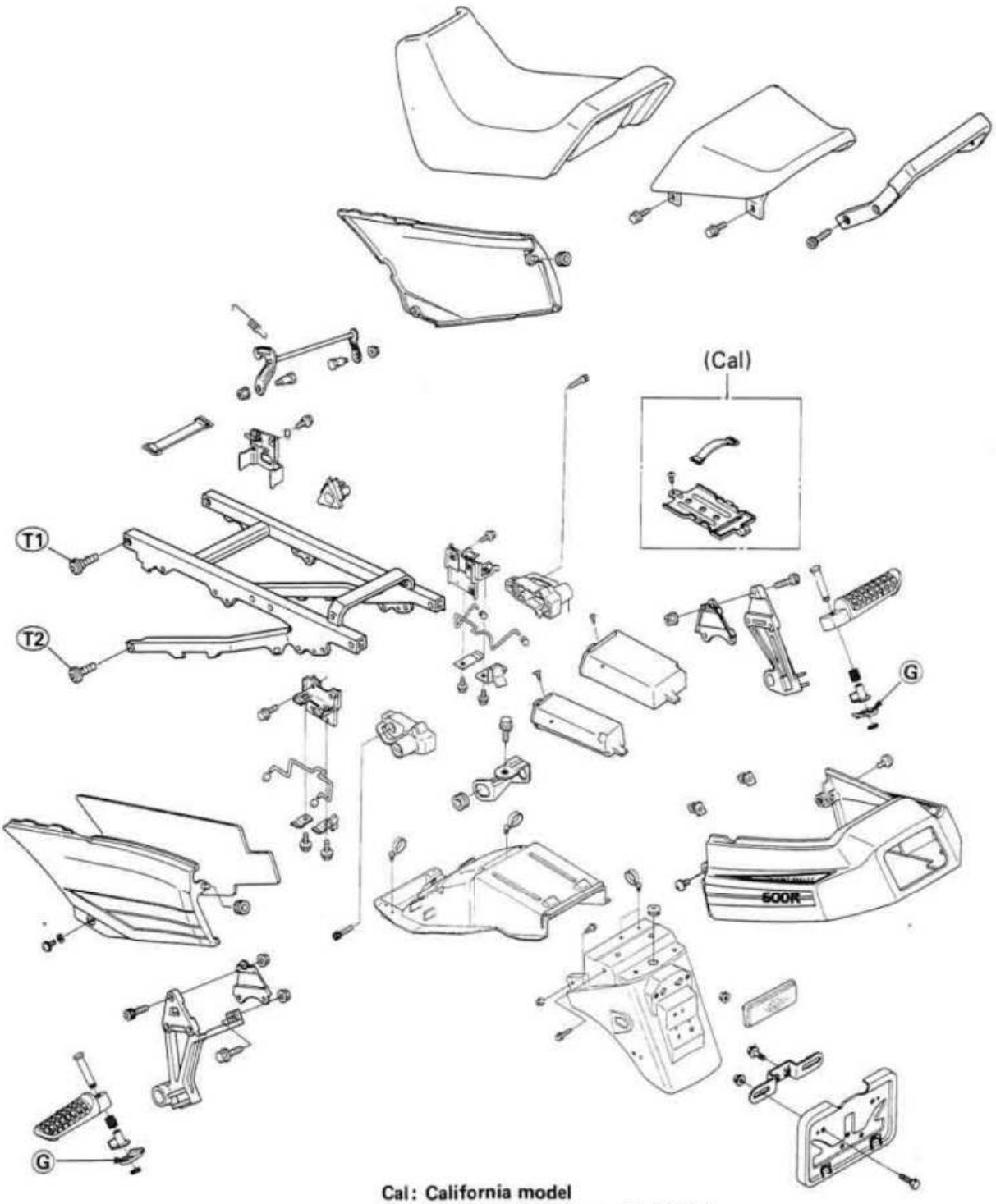
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*.....Refer to Base Manual

Exploded View



AD: Apply adhesive cement.
G : Apply grease.

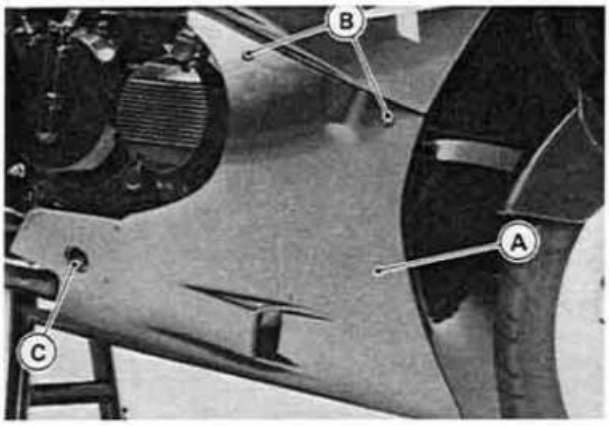


Cal: California model
T1: 18.5 N-m (1.85 kg-m, 13.4 ft-lb)
T2: 44 N-m (4.5 kg-m, 33 ft-lb)

Fairings

Lower Fairing Removal

●Remove the mounting screws and Allen bolts, and take off the lower fairing.



A. Lower Fairing
B. Screws
C. Allen Bolt

Lower Fairing Installation

●Installation is the reverse of removal.

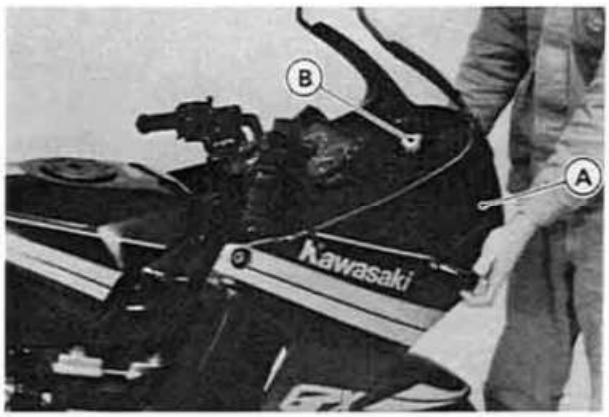
Upper Fairing Removal

●Remove the following.
Lower Fairing
Rider's Seat
Knee Grip Covers
Rear View Mirrors
●Remove the mounting screws and Allen bolts.



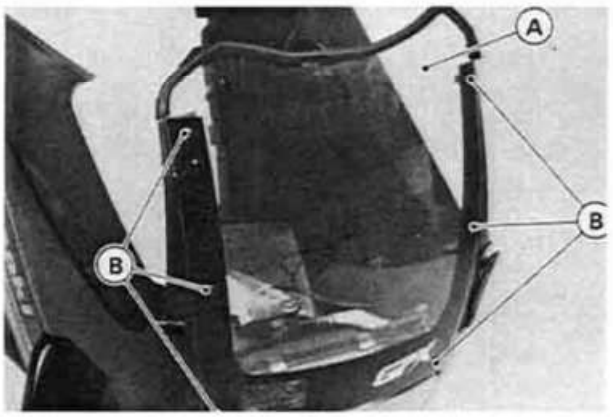
A. Upper Fairing
B. Screw
C. Allen Bolt

●Pull the upper fairing assembly toward the front.
●Holding the assembly, disconnect the head light and turn signal light lead connector.



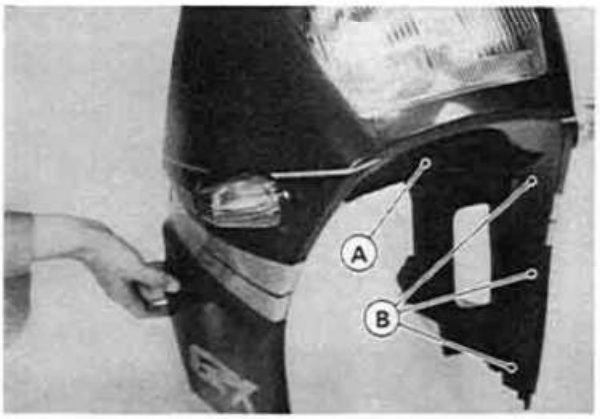
A. Upper Fairing Assembly B. Lead Connector

●Take off the assembly forward.
●Separate the following.
Windshield



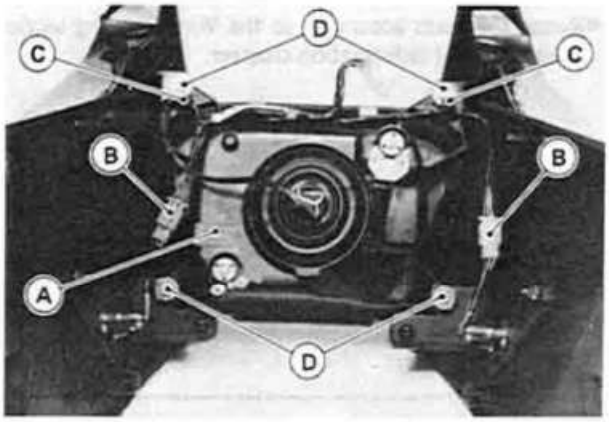
A. Windshield B. Screws

Headlight Lower Cover



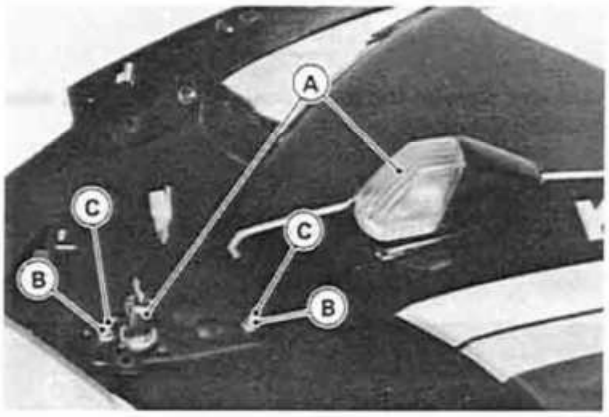
A. Headlight Lower Cover B. Screws

Headlight



A. Headlight
B. Turn Signal Lead Connectors
C. Lead Clamps
D. Mounting Bolts

Turn Signal Lights



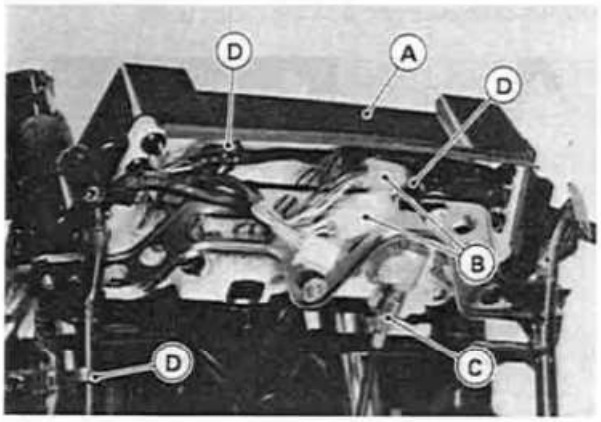
A. Turn Signal Light
B. Nuts
C. Bolts

Upper Fairing Installation Notes

- Installation is the reverse of removal.
- Route the headlight and turn signal leads according to the Wire Routing section in the General Information chapter.

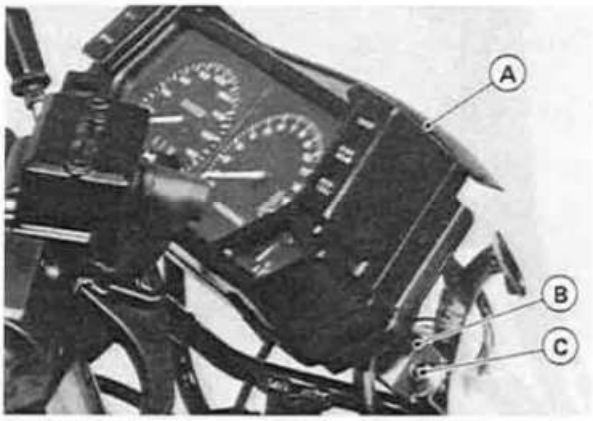
Fairing Stay Removal

- Remove the upper fairing.
- Disconnect the meter unit lead connectors.
- Remove the speedometer cable upper end.



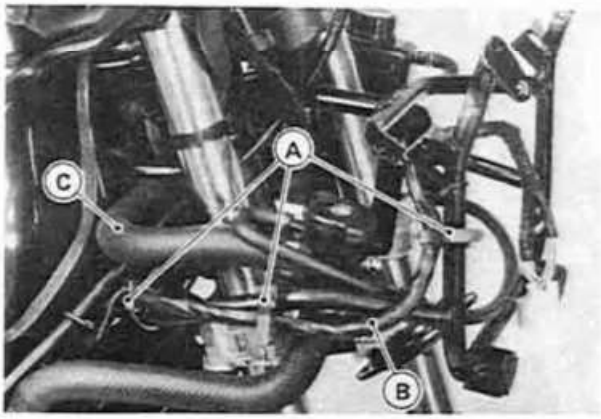
A. Meter Unit
B. Lead Connectors
C. Speedometer Cable Upper End
D. Clamps

- Remove the meter unit with the bracket.



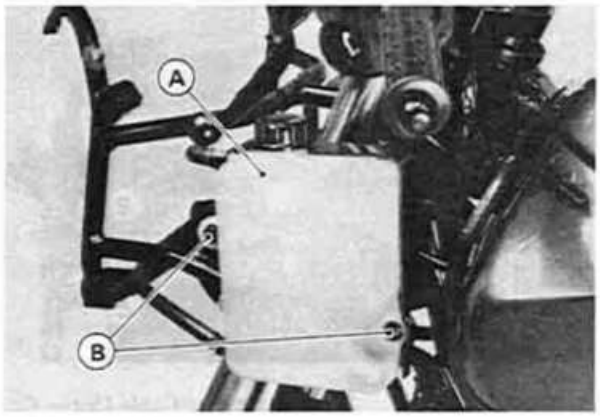
A. Meter Unit
B. Bracket
C. Mounting Bolt

- Remove the clamps for the lead and the water hose.



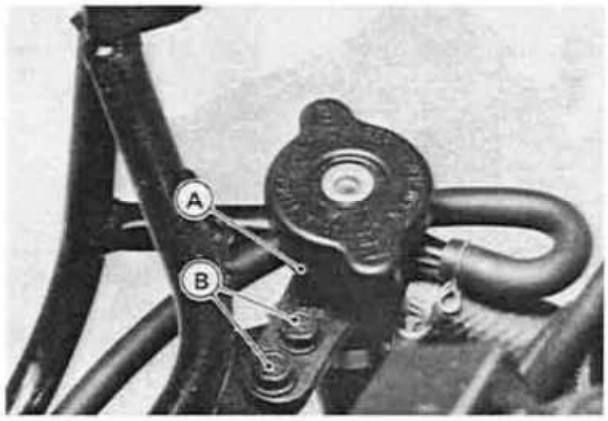
A. Clamps
B. Lead
C. Water Hose

●Remove the reservoir tank mounting bolts.



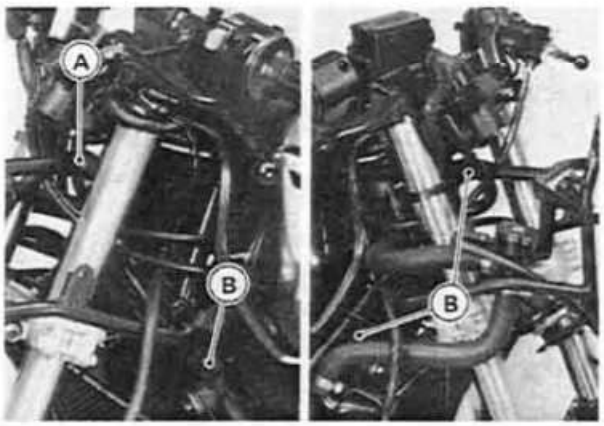
A. Reservoir Tank B. Mounting Bolts

●Remove the radiator filler mounting bolts.



A. Radiator Filler B. Mounting Bolts

●Remove the fairing stay mounting nut and bolts.
●Pull off the fairing stay mounting bolt, and take out the fairing stay forward.



A. Mounting Nut
B. Mounting Bolt

Fairing Stay Installation Notes

●Installation is the reverse of removal.
●Route the leads according to the Wire Routing section in the General Information chapter.

Fenders

Front Fender Removal

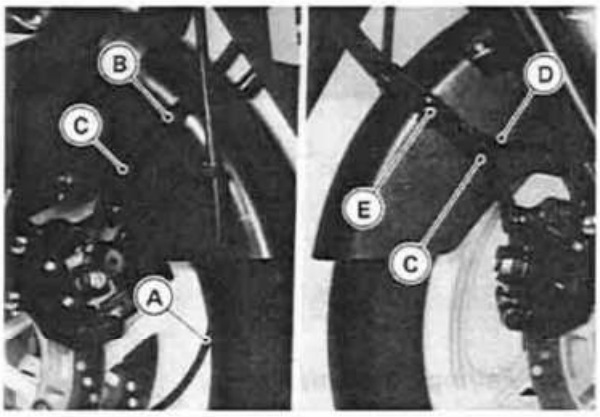
See the Base Manual, noting the following.
●Cut and pull the brake hose guides out of the fender, and free the brake hoses and ESCS lead.

CAUTION

○**Do not damage the brake hoses and ESCS lead when cutting the guides.**

NOTE

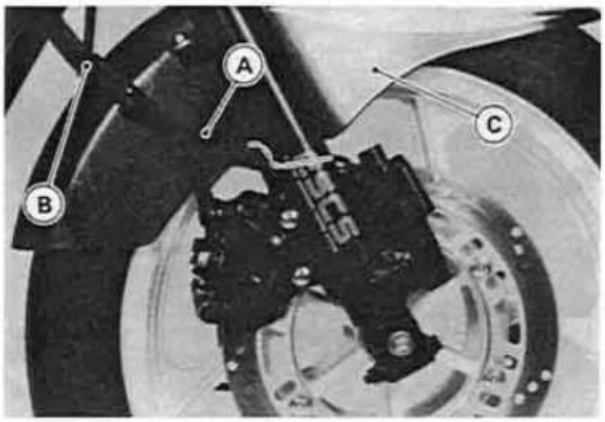
○*Before pulling out the guides, put a little oil on the tang.*



A. Speedometer Cable
B. Guide
C. Brake Hose
D. ESCS Lead
E. Guide

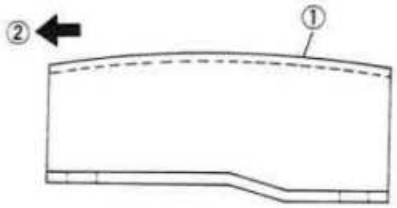
Front Fender Installation Notes

See the Base Manual, noting the following.
●Route the ESCS lead so as not to catch between a fork and the fender.



A. ESCS Lead
B. Guide
C. Front Fender

●Install the brace as shown.



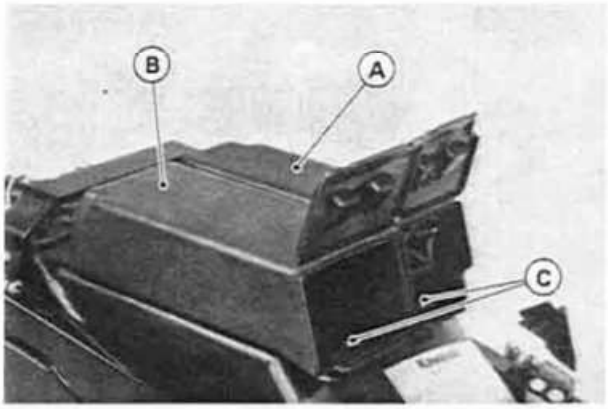
1. Brace
2. Front

●Replace the guides that were cut and pulled out with new ones.

Rear Fender Removal

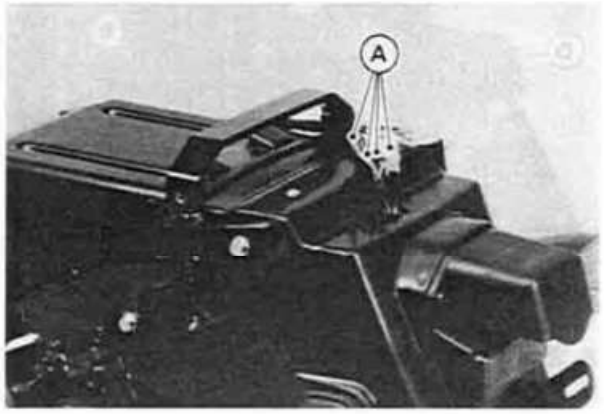
●Remove the following.
Rider's Seat
Knee Grip Covers
Fuel Tank
Side Covers
Seat Cover
Passenger Seat

●Open the tool and document containers, unscrew each mounting screws and take off the containers.

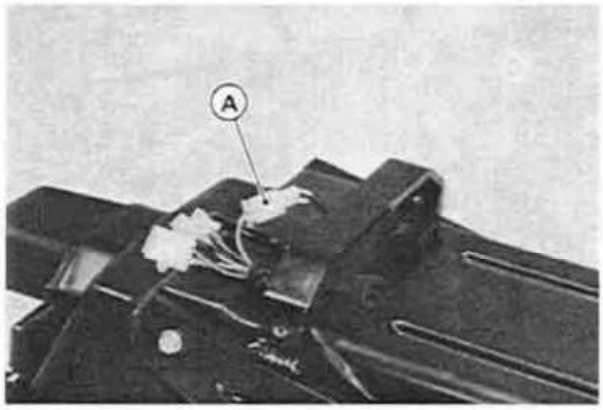


A. Tool Container
B. Document Container
C. Mounting Screws

●Disconnect the turn signal lights (US, Canadian model) and license plate light leads connectors.

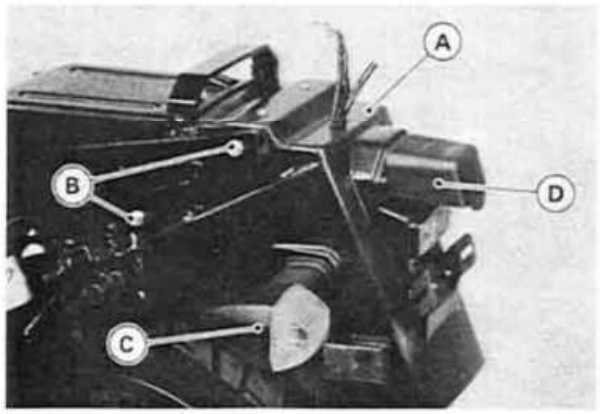


A. Connectors (US, Canadian Model)

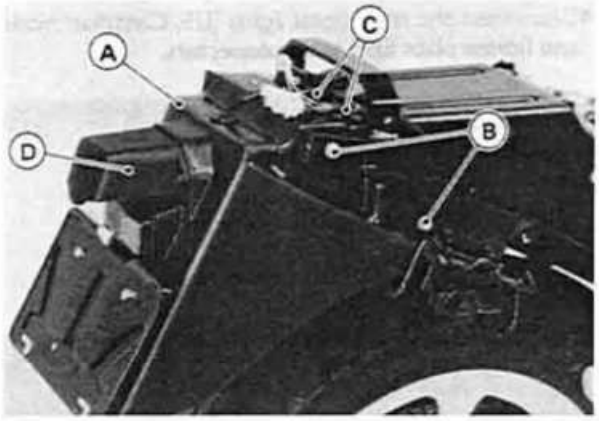


A. Connector

●Remove the rear fender mounting bolts, and remove the rear fender rear section toward the rear with the turn signal lights (US, Canadian model) and the license plate light.

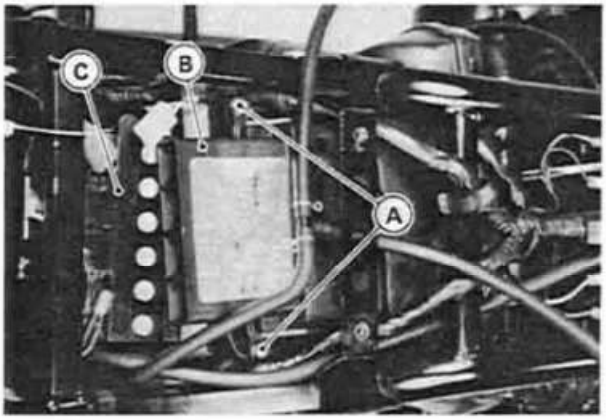


A. Rear Fender Rear Section (US, Canadian Model)
B. Mounting Bolts
C. Turn Signal Light
D. License Plate Light



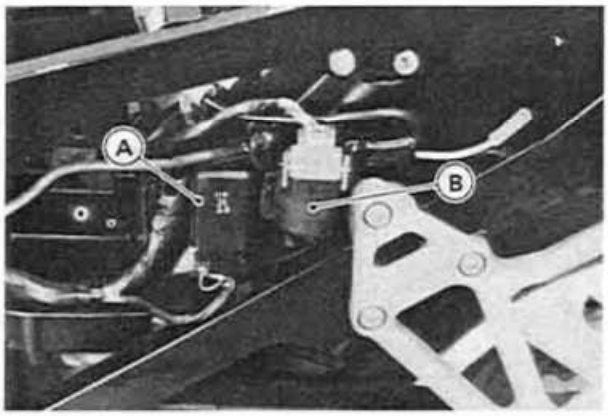
A. Rear Fender Rear Section
B. Mounting Bolts
C. Clamps
D. License Plate Light

•Remove the air cleaner cap mounting screws, and take off the cap.



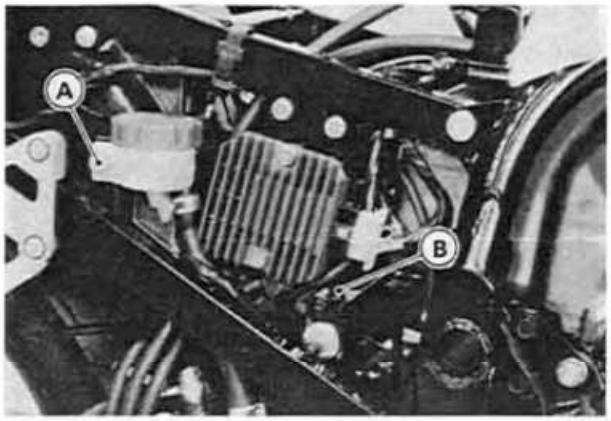
A. Air Cleaner Cap
B. Mounting Screws
C. Battery

•Disconnect the terminal leads, remove the battery band, and take out the battery.
•Remove the turn signal relay and the starter relay from the left side of the rear fender front section.



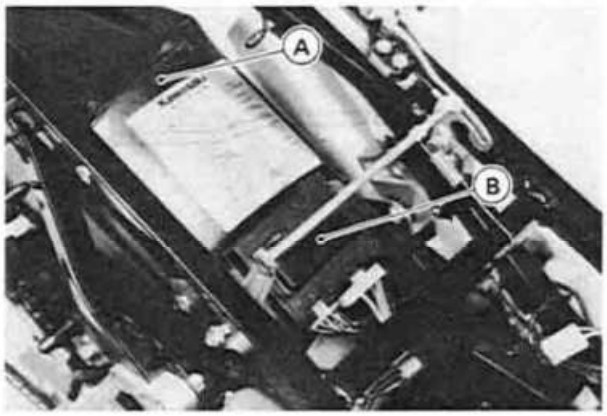
A. Turn Signal Relay
B. Starter Relay

•Remove the rear brake reservoir mounting bolt, and the air valve bracket mounting bolt.



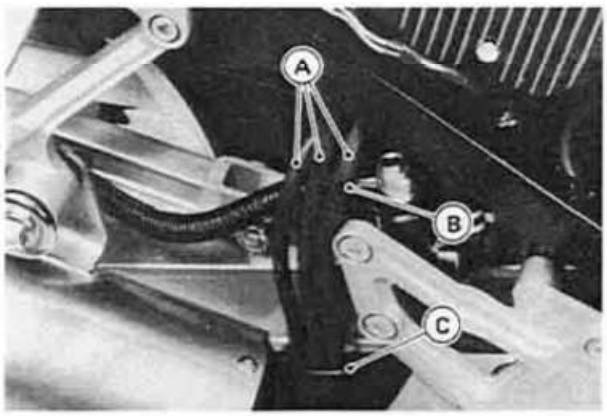
A. Reservoir Mounting Bolt
B. Air Valve Braket Mounting Bolt

•Push down the rear fender front section.
•Slide the junction box toward the rear and out of place.



A. Rear Fender Front Section
B. Junction Box

•Remove the harness clamps on the rear fender front section.
•Remove the breather hose from the clamp, and pull it out of the hose guide.



A. Breather Hose
B. Clamp
C. Guide

•Take the boss at the front portion of the fender out of the frame hole.
•Take out the rear fender front section toward the rear.

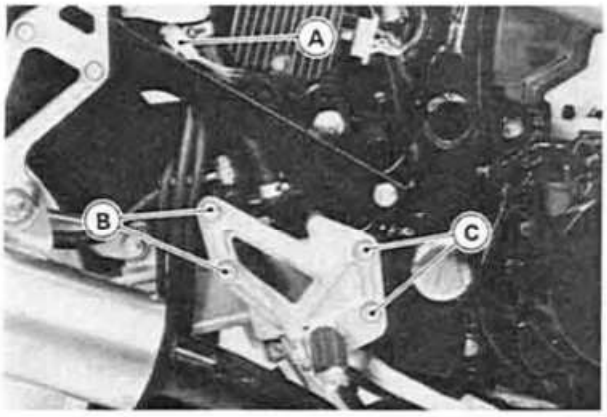
Rear Fender Installation Notes

•Installation is the reverse of removal.
•Fit the boss at the front portion of the fender into the frame hole.
•Route the breather hose and the harness according to the Hose Routing and the Wire Routing in the General Information chapter.

Footpeg and Bracket

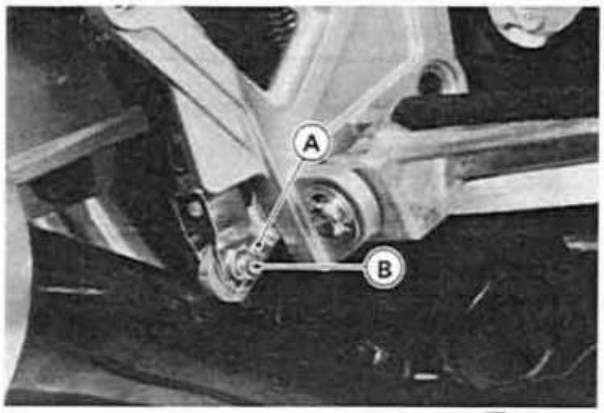
Right Footpeg and Bracket Removal

•Remove the right side cover.
•Disconnect the rear brake switch lead connector.
•Remove the rear master cylinder mounting bolts, and the right footpeg bracket mounting bolts.



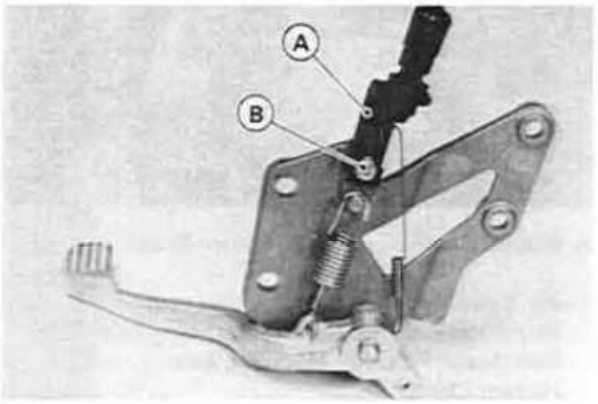
A. Rear Brake Switch Lead Connector
B. Master Cylinder Mounting Bolts
C. Footpeg Bracket Mounting Bolts

•Unhook the rear brake switch spring lower end.
•Pull out the cotter pin, and remove the joint pin.



A. Cotter Pin B. Joint Pin

•Remove the rear brake switch bracket mounting bolt.



A. Rear Brake Switch Bracket B. Mounting Bolt

•Separate the footpeg and bracket.

Right Footpeg and Bracket Installation Notes

•Installation is the reverse of removal.
•After tightening the right footpeg bracket mounting bolts, hook the rear brake switch spring lower end and install the master cylinder mounting bolts while pushing down the brake pedal.
•Tighten the rear master cylinder mounting bolts to the specified torque (see the Brakes chapter).
•Check the brake pedal position, and the rear brake light switch operation (see the Brakes, and the Electrical chapter).

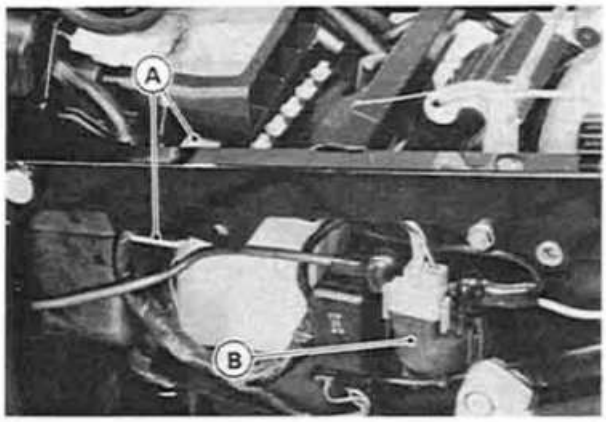
Left Footpeg and Bracket Installation

See the Base Manual, noting the following.
•When installing the shift pedal, apply grease to the journal of the pivot bolt and tighten the bolt to the specified torque (see the Crankshaft/Transmission chapter).

Rear Frame

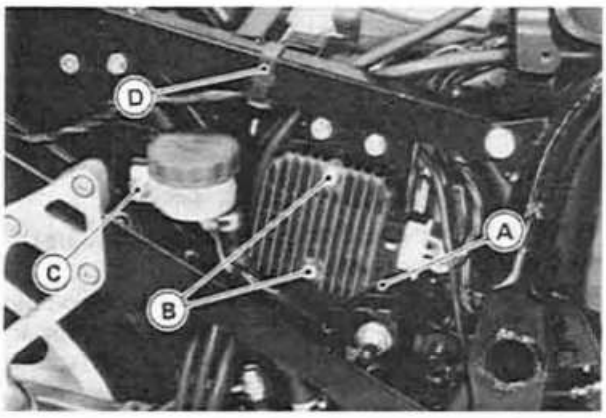
Rear Frame Removal

●Remove the following.
Rider's Seat
Knee Grip Covers
Side Covers
Seat Covers
Passenger Seat
Battery Band
Starter Relay



A. Battery Band B. Starter Relay

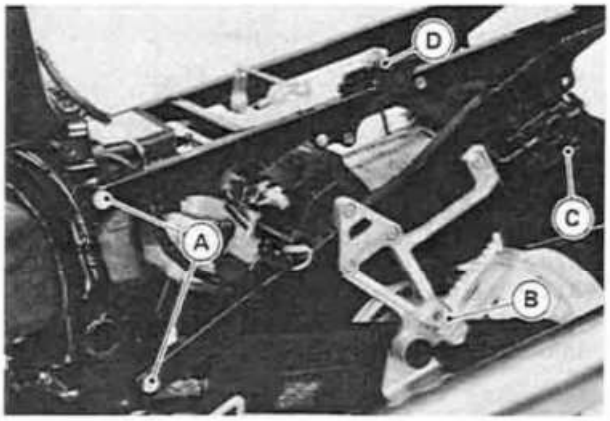
Air Valve Mounting Bolt
Regulator/Rectifier Bracket Mounting Bolts
Rear Brake Reservoir Mounting Bolt
Harness Clamp



A. Air Valve Mounting Bolt
B. Regulator/Rectifier Bracket Mounting Bolts
C. Rear Brake Reservoir Mounting Bolt
D. Harness Clamp

Rear Fender Rear Section
Muffler Mounting Bolts

●Push the rear fender front section down onto the rear tire.
●Remove the mounting bolts, and take off the rear frame with the rear footpegs, helmet lock bracket and seat lock assembly toward the rear.
●Remove the rear footpegs, helmet lock and seat lock assembly from the rear frame.



A. Rear Frame Mounting Bolts C. Helmet Lock
B. Rear Footpeg D. Seat Lock Assembly

Rear Frame Installation Notes

●Installation is the reverse of removal.
●Route the hoses and the harness according to the Hose Routing and the Wire Routing in the General Information chapter.

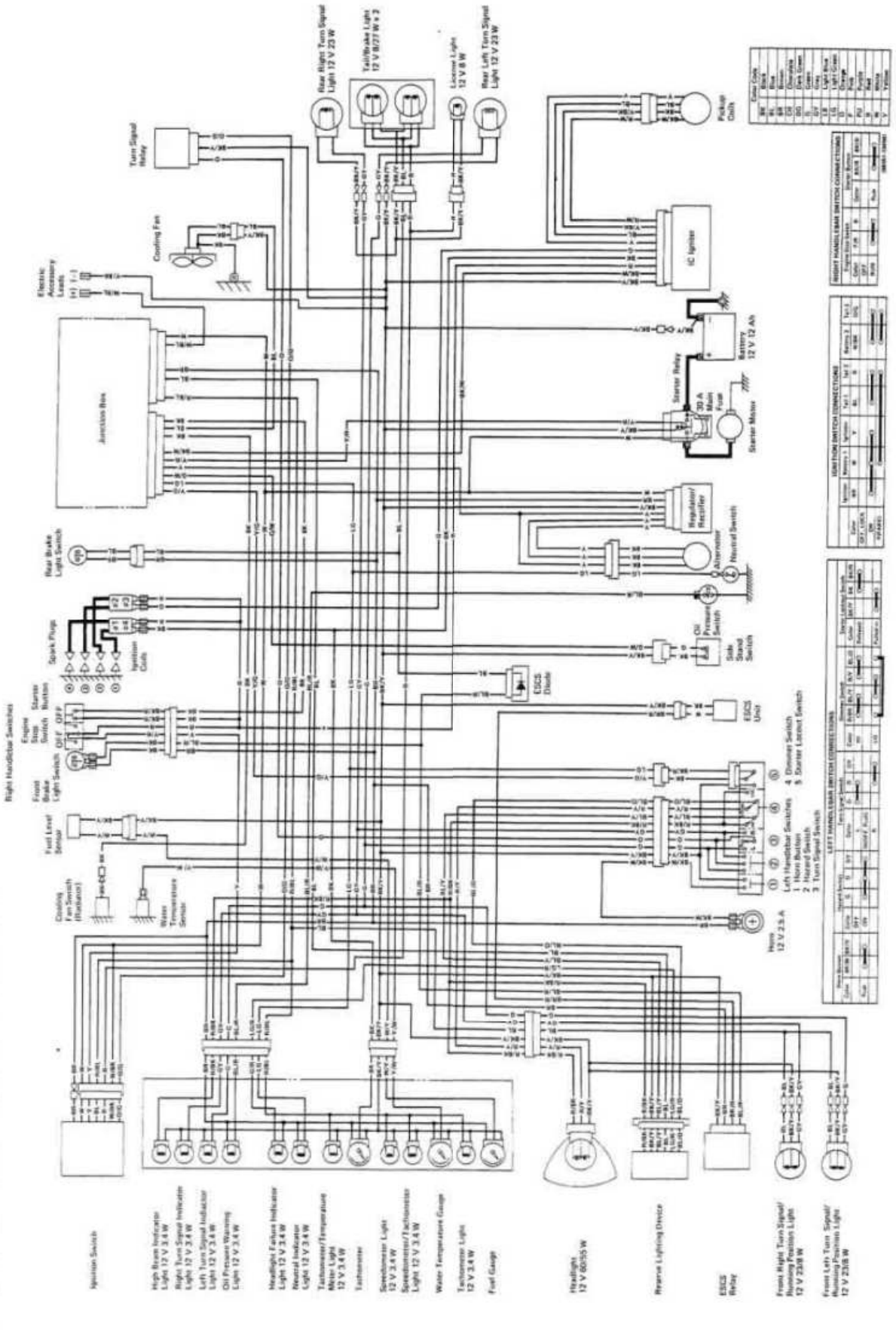
Electrical System

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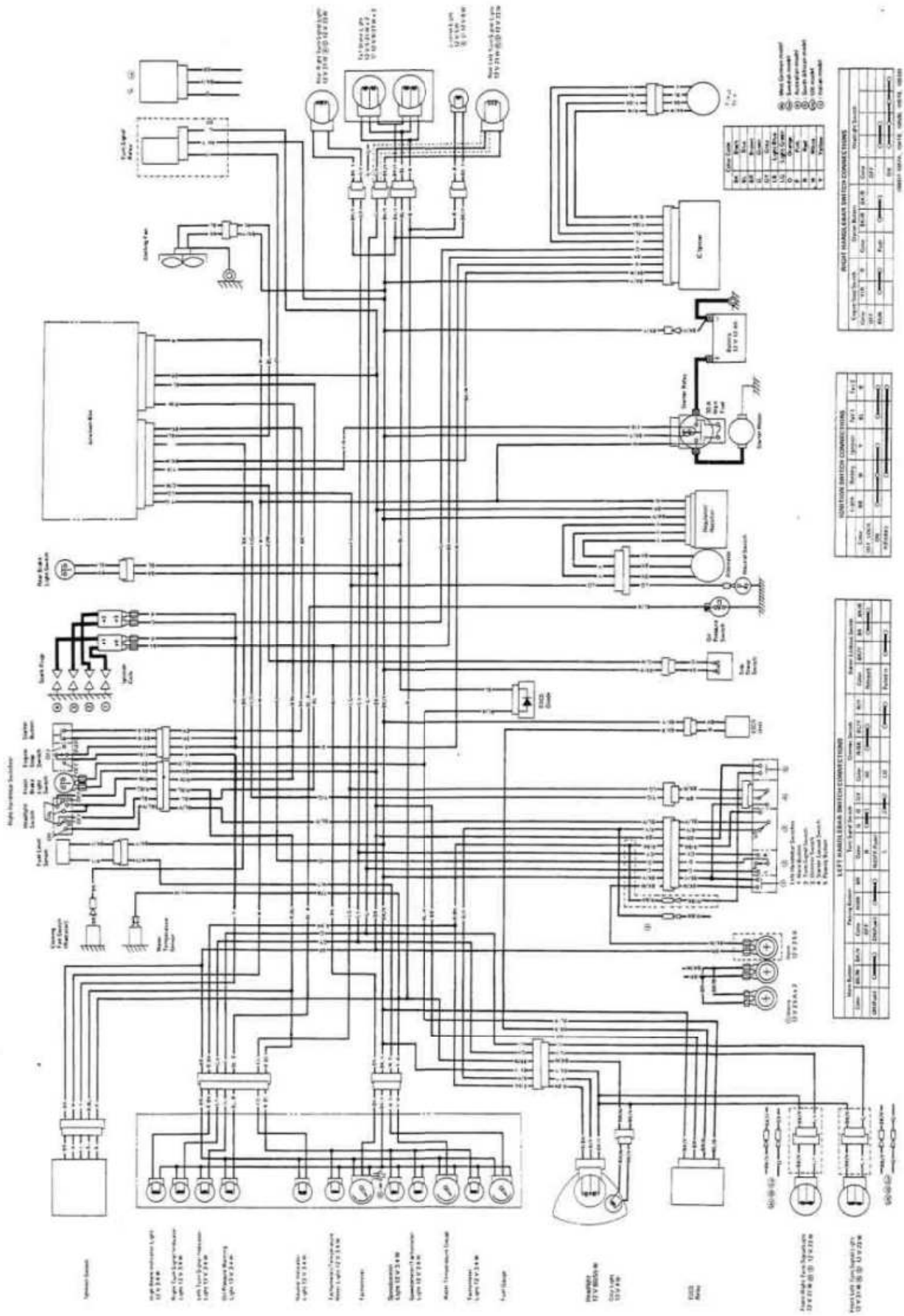
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*.....Refer to Base Manual

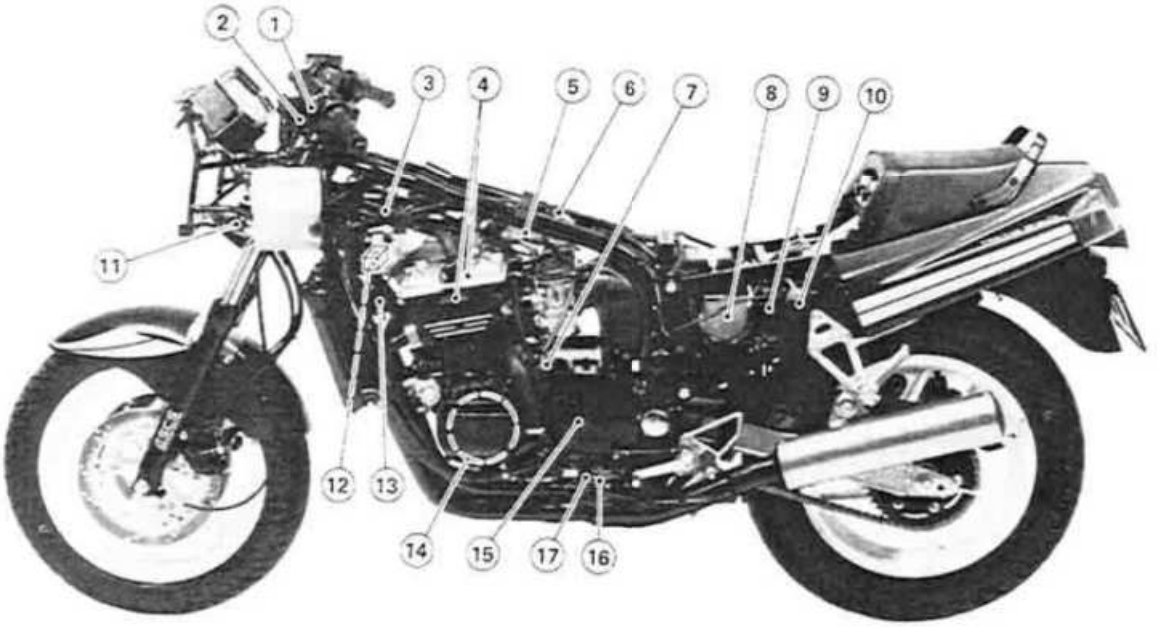
ZX600-C1 Wiring Diagram (US and Canada)

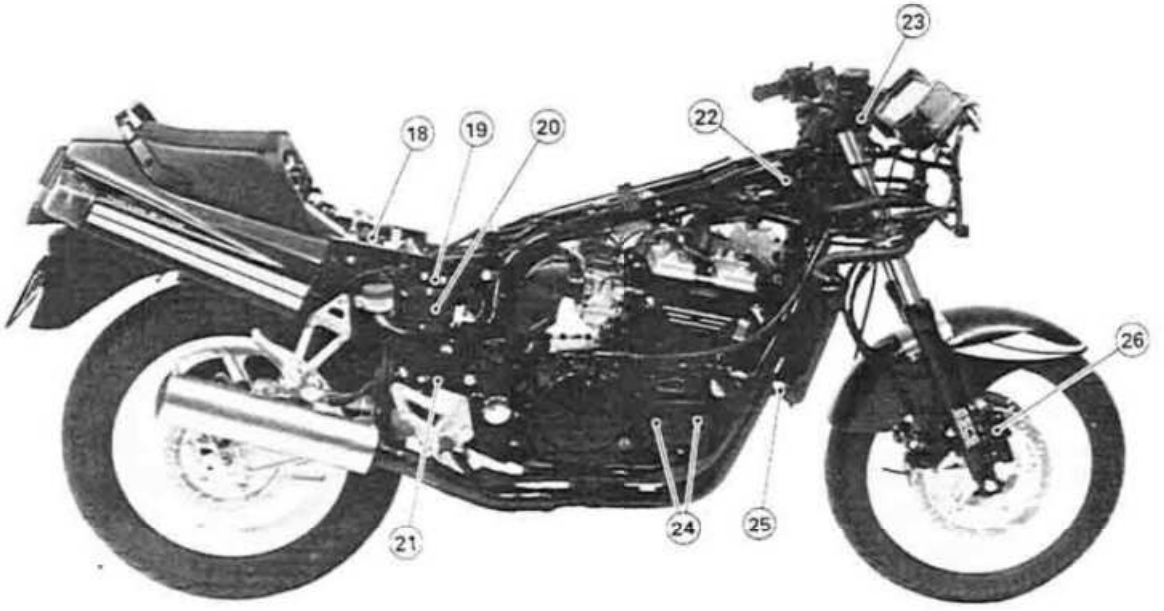


ZX600-C1/ZX500-B1 Wiring Diagram (Other than US and Canada)



Parts Location

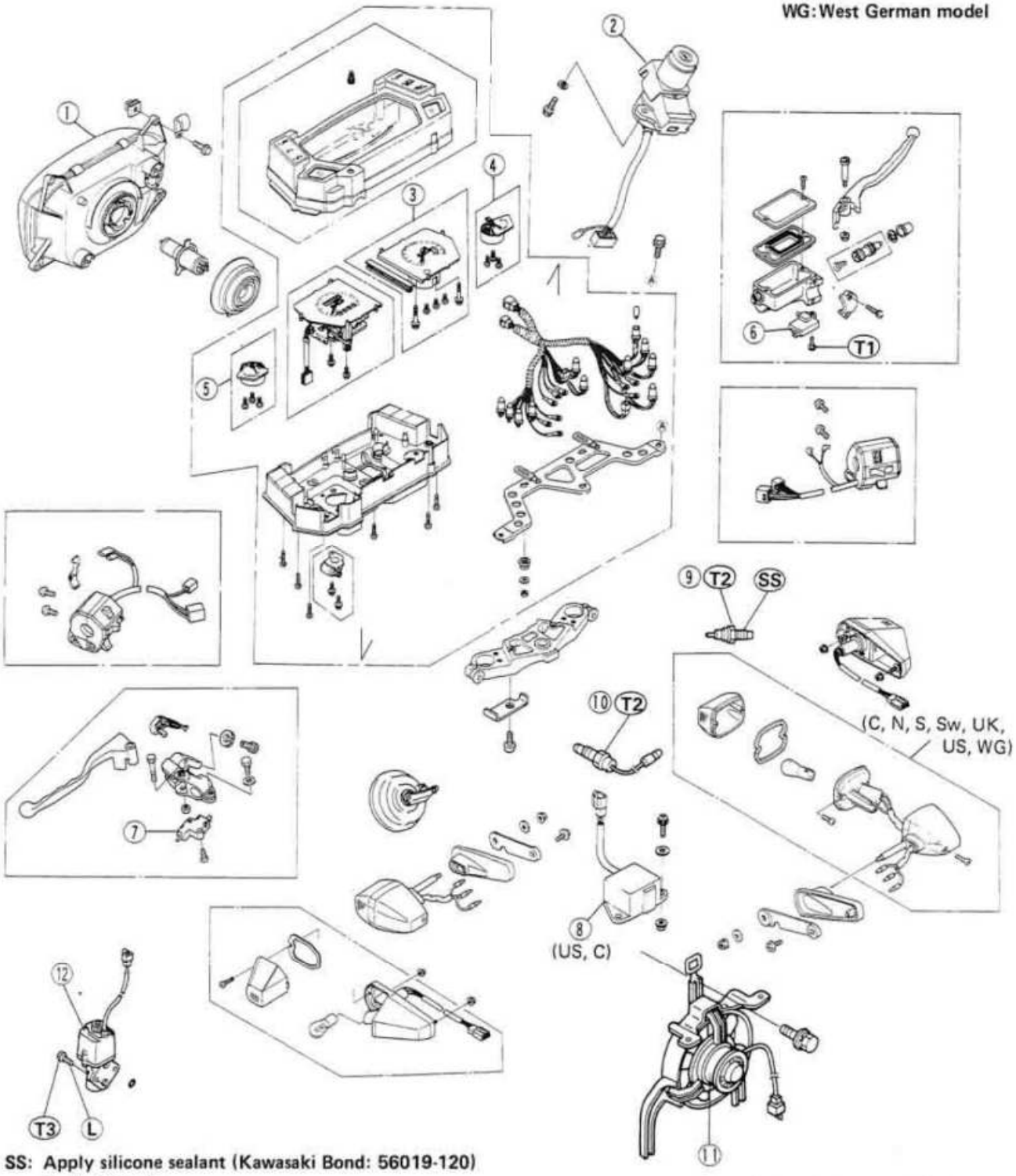




1. Ignition Switch
2. Starter Lockout Switch
3. Water Temperature Sensor
4. Spark Plugs
5. Ignition Coil
6. ESCS Diode
7. Starter Motor
8. Battery
9. Turn Signal Relay
10. Starter Relay
11. Horn
12. Reserve Lighting Device (US, Canadian model)
13. Cooling Fan
14. Alternator Stator
15. Neutral Switch
16. Oil Pressure Switch
17. Side Stand Switch
18. Junction Box
19. IC Igniter
20. Regulator/Rectifier
21. Rear Brake Light Switch
22. ESCS Relay
23. Front Brake Light Switch
24. Pickup Coils
25. Cooling Fan Switch
26. ESCS Unit

Exploded View

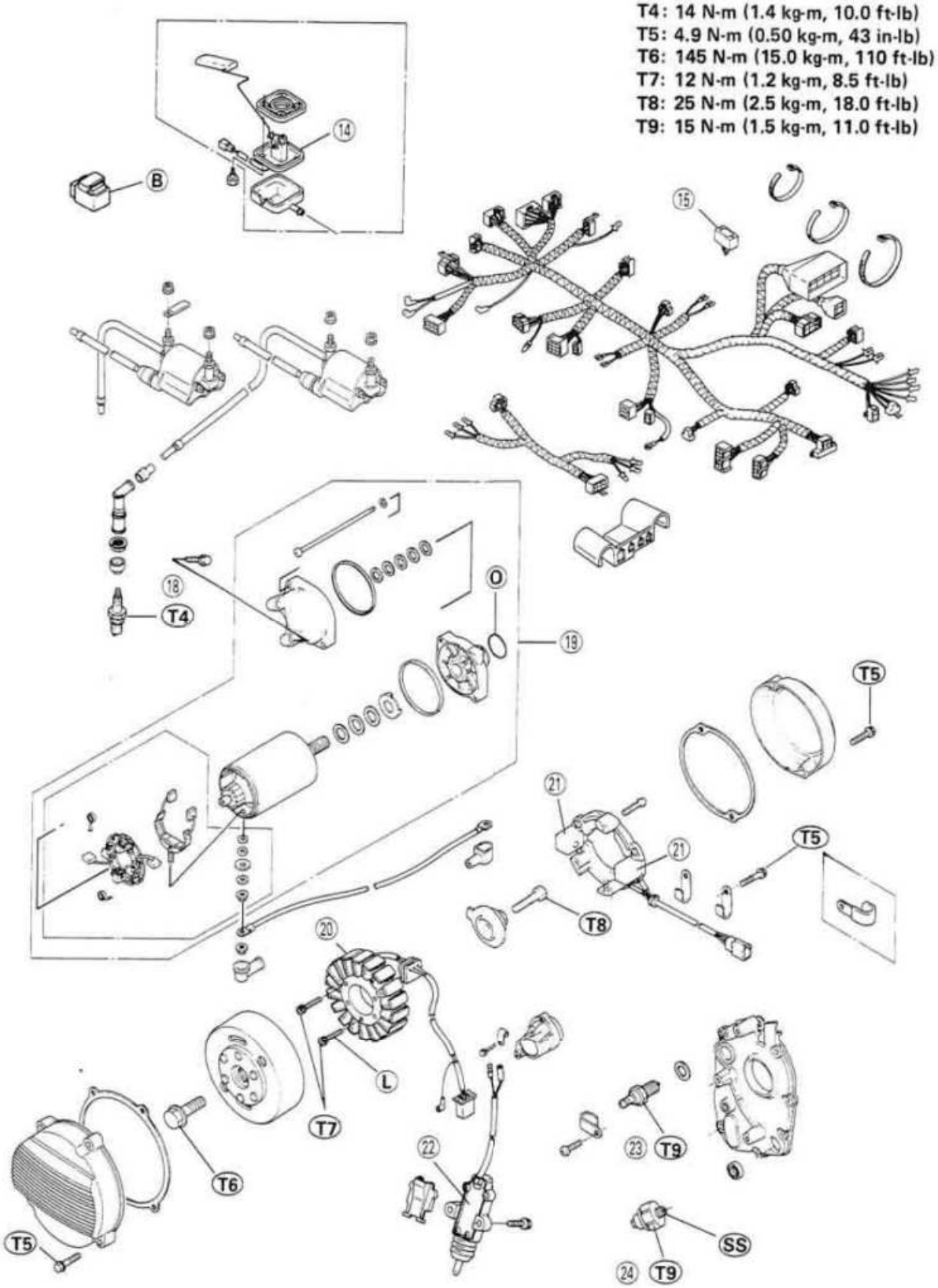
C : Canadian model
N : Norwegian model
S : Swiss model
Sw: Swedish model
UK: U.K. model
US: US model
WG: West German model

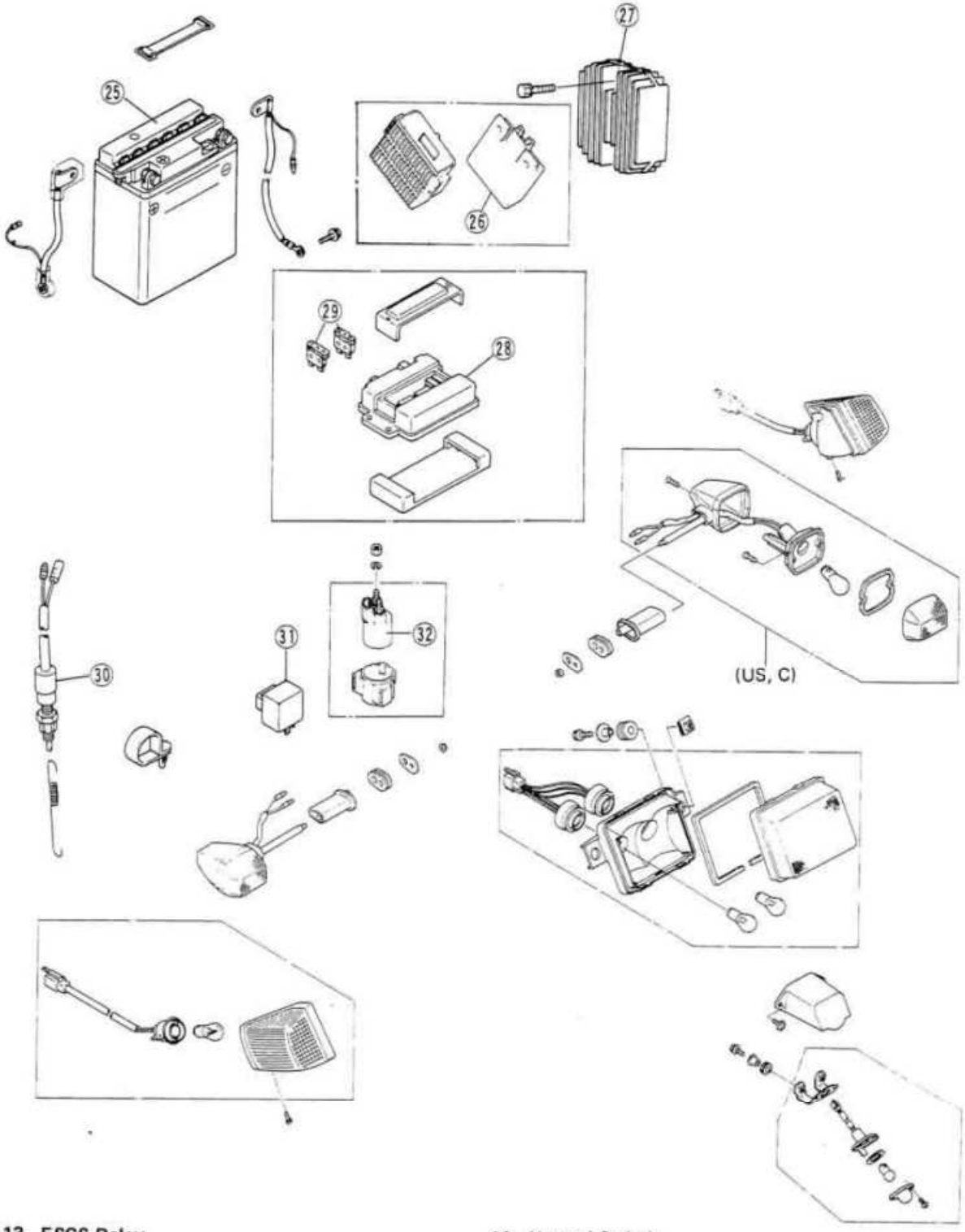


SS: Apply silicone sealant (Kawasaki Bond: 56019-120) to the threads.
L : Apply a non-permanent locking agent to the threads.
O : Apply engine oil.

1. Headlight
2. Ignition Switch
3. Tachometer
4. Water Temperature Gauge
5. Fuel Gauge
6. Front Brake Light Switch
7. Starter Lockout Switch
8. Reserve Lighting Device
9. Water Temperature Sensor
10. Cooling Fan Switch
11. Cooling Fan
12. ESCS Unit

T1: 1.3 N-m (0.13 kg-m, 11 in-lb)
T2: 7.8 (0.8 kg-m, 69 in-lb)
T3: 6.9 N-m (0.7 kg-m, 61 in-lb)
T4: 14 N-m (1.4 kg-m, 10.0 ft-lb)
T5: 4.9 N-m (0.50 kg-m, 43 in-lb)
T6: 145 N-m (15.0 kg-m, 110 ft-lb)
T7: 12 N-m (1.2 kg-m, 8.5 ft-lb)
T8: 25 N-m (2.5 kg-m, 18.0 ft-lb)
T9: 15 N-m (1.5 kg-m, 11.0 ft-lb)





13. ESCS Relay
14. Fuel Level Sensor
15. ESCS Diode
16. Ignition Coil (#1, #4)
17. Ignition Coil (#2, #3)
18. Spark Plug
19. Starter Motor
20. Alternator Stator
21. Pickup Coil
22. Side Stand Switch
23. Neutral Switch
24. Oil Pressure Switch
25. Battery
26. IC Igniter
27. Regulator/Rectifier
28. Junction Box
29. Fuses
30. Rear Brake Light Switch
31. Turn Signal Relay
32. Starter Relay

Specifications

The following specifications are only those that are unique to the ZX600C/500B. For all other data, refer to the Base Manual.

Item		Standard
Ignition System:		
Ignition timing	ZX600C	10° BTDC @1 050 r/min (rpm) – 32.5° BTDC @10 000 r/min (rpm)
		(Cal) 7.5° BTDC @1 300 r/min (rpm) – 35° BTDC @10 000 r/min (rpm)
	ZX500B	10° BTDC @1 200 r/min (rpm) – 32.5° BTDC @10 000 r/min (rpm)
Ignition coil winding resistance:		
Primary windings		2.61 – 3.19 Ω
Secondary windings		13.5 – 16.5 kΩ
ESCS (Electric Suspension Control System):		
ESCS relay coil resistance		90 – 110 Ω
Switches and Sensors:		
Fuel level sensor resistance:		
Full position		2 – 8 Ω
Empty position		90 – 100 Ω

(Cal) : California model

Special Tools

Along with common hand tools, the following more specialized tools are required for complete electrical system servicing.

Flywheel Holder: 57001-306



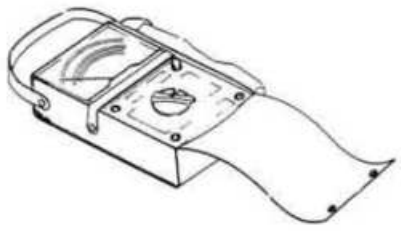
Rotor Puller: 57001-1216



Rotor Puller Adapter: 57001-1244



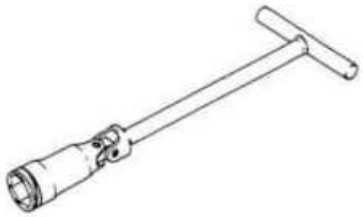
Hand Tester: 57001-983



Coil Tester: 57001-1242



Spark Plug Wrench: 57001-1024



Sealant

Kawasaki Bond (Silicone Sealant): 56019-120



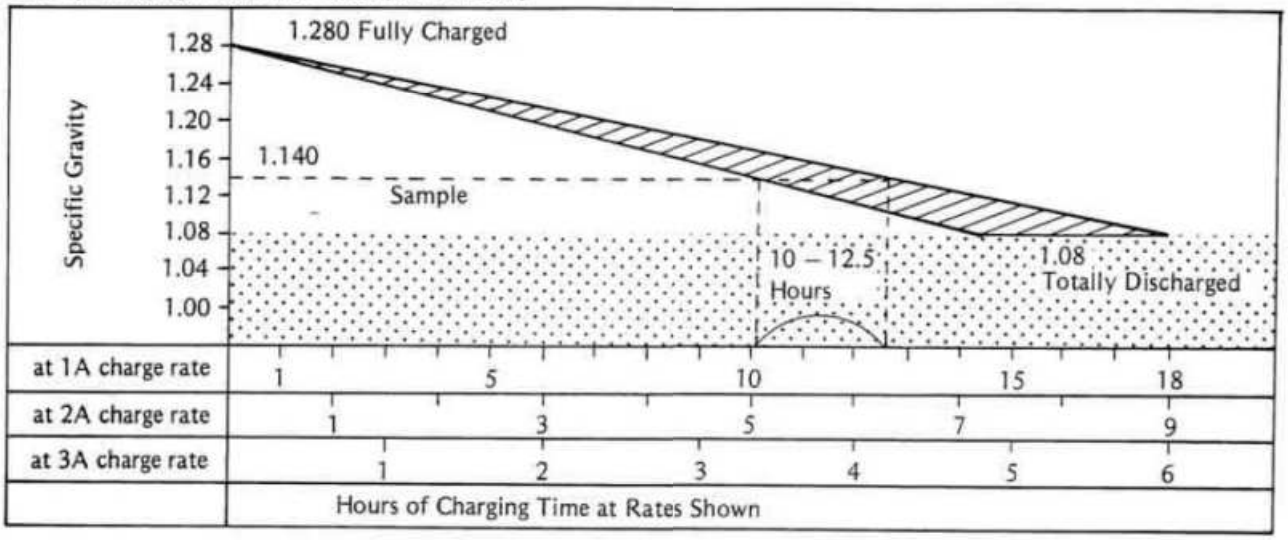
Battery

Battery Charging:

Battery Ordinary Charging

See the Base Manual, noting the following.

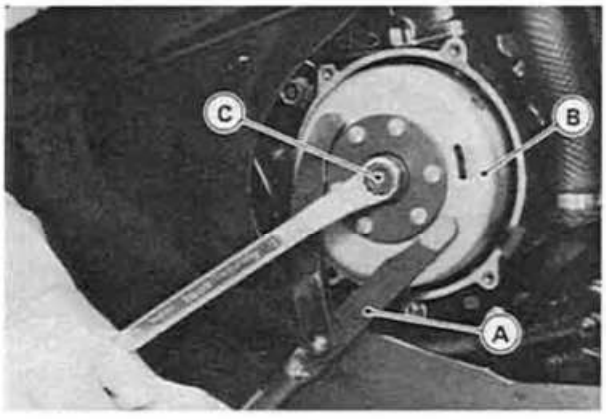
Battery Charging Rate/Time Table (12 V 12 Ah)



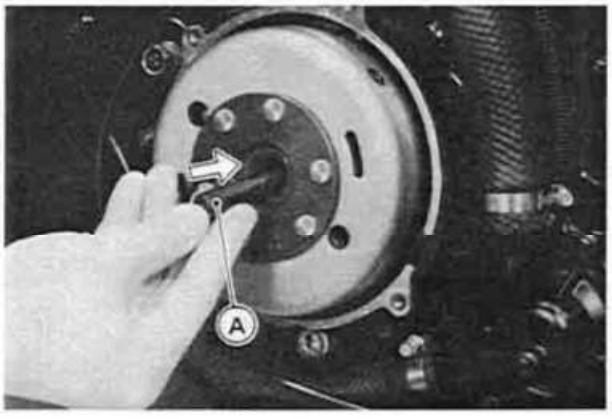
Charging System

Alternator Rotor Removal

- Remove the alternator cover.
- Hold the alternator rotor steady with the flywheel holder (special tool), and remove the rotor bolt.
- Insert the rotor puller adapter (special tool) into the rotor bolt hole.

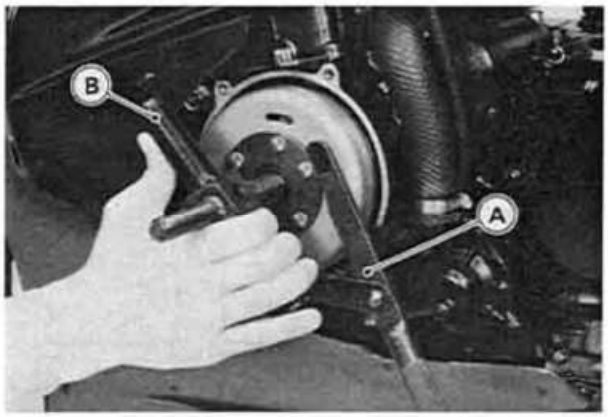


A. Flywheel Holder: 57001-306
B. Rotor
C. Rotor Bolt



A. Rotor Puller Adapter: 57001-1244

•Using the flywheel holder (special tool) to hold the rotor steady, remove the rotor with the rotor puller (special tool).



A. Flywheel Holder: 57001-306
B. Rotor Puller: 57001-1216

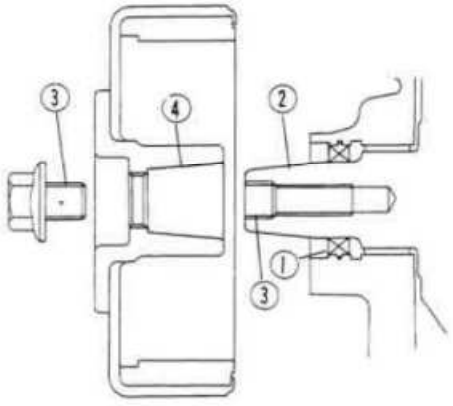
CAUTION

○If the rotor is difficult to remove, turn the puller while tapping the head of the puller with a hammer. Do not strike the alternator rotor itself. Striking the rotor can cause the magnets to lose their magnetism.

Alternator Rotor Installation Notes

See the Base Manual, noting the following.

Alternator Rotor Cleaning Area



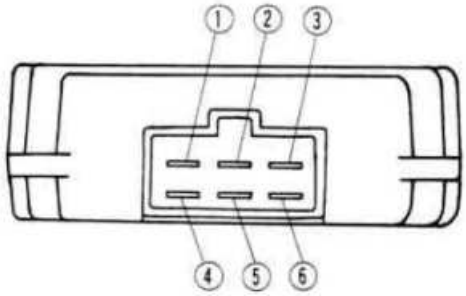
1. The surface of the crankshaft oil seal.
2. The tapered portion of the crankshaft.
3. The alternator rotor bolt and the threads in the crankshaft.
4. The tapered portion of the alternator rotor.

•Hold the alternator rotor steady with the flywheel holder (special tool: 57001-306), and tighten the alternator rotor bolt to the specified torque (see Exploded View).

Regulator/Rectifier Inspection

Rectifier Circuit Check:

See Rectifier Inspection in the Base Manual, noting the following.



1. White Lead Terminal
2. Brown Lead Terminal
3. Black/Yellow Lead Terminal
4. Y_1 Lead Terminal
5. Y_2 Lead Terminal
6. Y_3 Lead Terminal

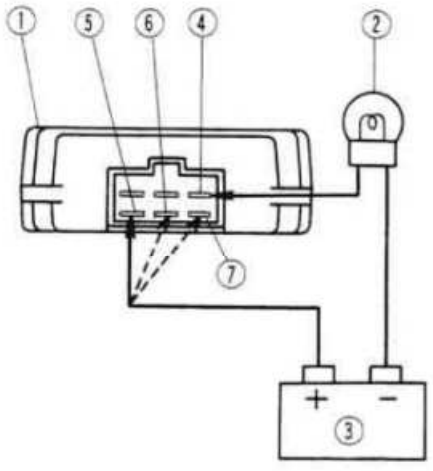
Regulator Circuit Check:

To test the regulator out of circuit, use three 12 V batteries and a test light made from a 12 V 3 – 6 W bulb in a socket with leads.

•Remove the regulator/rectifier unit from the frame.

•Using auxiliary leads, connect one of the yellow leads at the unit to the battery (+) terminal, and connect the test light between the black/yellow lead terminal at and the battery (–) terminal.

•At this time the bulb should not be lit.

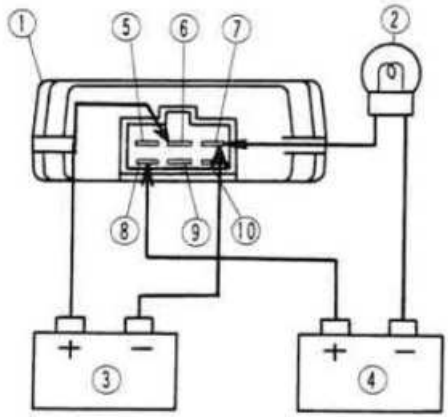


1. Regulator/Rectifier
2. Test Light
3. 12 V Battery
4. BK/Y Lead Terminal
5. Y_1 Lead Terminal
6. Y_2 Lead Terminal
7. Y_3 Lead Terminal

CAUTION

○**The test light works as an indicator and also as a current limiter to protect the regulator/rectifier from excessive current. Do not use an ammeter instead of a test light.**

●Connect the brown lead terminal to the other battery (+) terminal and connect the black/yellow lead terminal to the battery (–) terminal momentarily. At this time the bulb should not be lit.

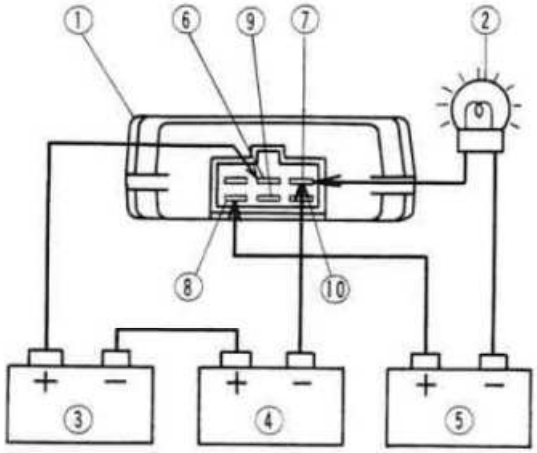


1. Regulator/Rectifier
2. Test Light
3. 12 V Battery
4. 12 V Battery
5. White Lead Terminal
6. Brown Lead Terminal
7. Black/Yellow Lead Terminal
8. Y_1 Lead Terminal
9. Y_2 Lead Terminal
10. Y_3 Lead Terminal

●To apply 24 V to the regulator/rectifier, connect two 12 V batteries in series, and connect the brown lead terminal to the battery (+) terminal and the black/yellow lead terminal to the battery (–) terminal momentarily. The bulb should now light and stay on until the bulb circuit is opened.

CAUTION

○**Do not apply more than 24 volts. If more than 24 volts is applied, the regulator/rectifier may be damaged. Do not apply 24 V more than a few seconds. If 24 volts is applied for more than a few seconds, the regulator/rectifier may be damaged.**



1. Regulator/Rectifier
2. Test Light
3. 12 V Battery
4. 12 V Battery
5. 12 V Battery
6. Brown Lead Terminal
7. Black/Yellow Lead Terminal
8. Y_1 Lead Terminal
9. Y_2 Lead Terminal
10. Y_3 Lead Terminal

●Repeat the above three steps for the other two yellow leads (in connector 2 which leads to the regulator/rectifier).

★Replace the regulator/rectifier if the bulb does not light as described above.

NOTE

○*The above test is not foolproof. If the above checks show the regulator/rectifier is not damaged, but there is still trouble in the charging system, first carefully inspect the alternator, battery, wiring, and all connections. Replace the regulator/rectifier if all these other components turn out good.*

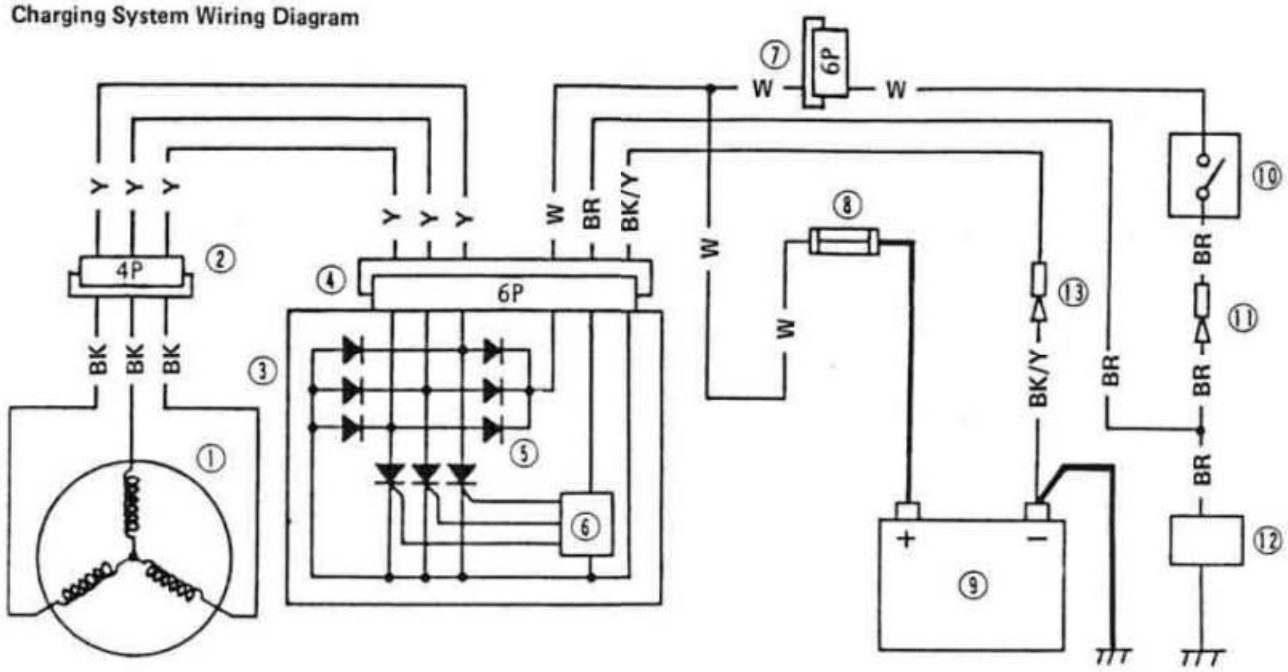
Regulator/Rectifier Output Voltage Inspection

See the Base Manual, noting the following.

Regulator/Rectifier Output Voltage

Meter Range	Connections		Reading
	Meter (+) to	Meter (–) to	
25 V DC	Battery (+) terminal (W/R)	Battery (–) terminal (BK/Y)	Battery Voltage 15 V

Charging System Wiring Diagram



1. Alternator
2. Connector 1
3. Regulator/Rectifier
4. Connector 2
5. Diode (Rectifier)
6. Control Circuit (IC)
7. Connector 3
8. 30A Main Fuse
9. Battery
10. Ignition Switch
11. Connector 4
12. Load
13. Connector 5

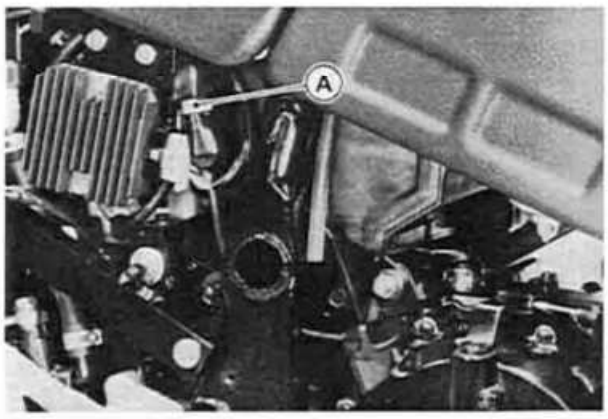
Ignition System

Pickup Coil Removal

See the Base Manual, noting the following.

○Remove the pickup coil lead clamps.

○Remove the right side cover, and disconnect the pickup coil lead connector.



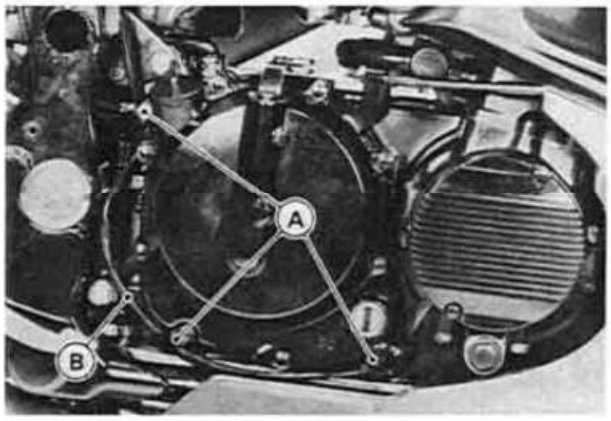
A. Pickup Coil Lead Connector

Pickup Coil Installation Notes

See the Base Manual, noting the following.

○Tighten the pickup coil cover mounting bolts to the specified torque (see Exploded View).

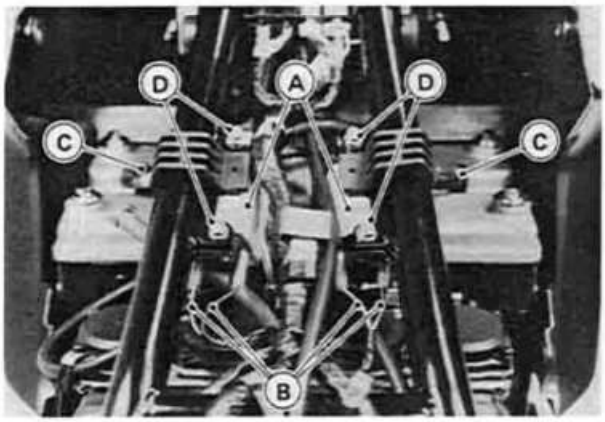
○Clamp the harness of the pickup coil lead as shown.



A. Clamps B. Pickup Coil Lead

Ignition Coil Removal

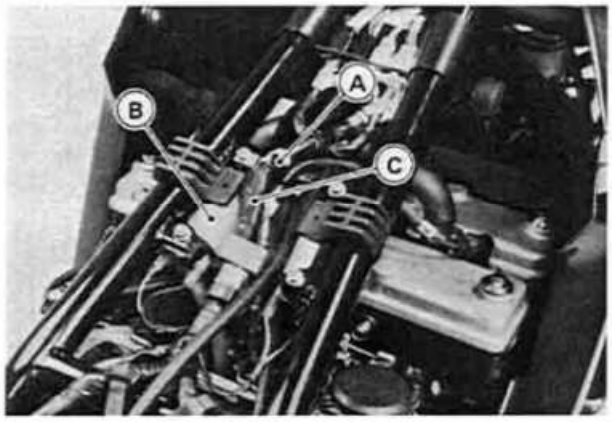
- Remove the following.
  - Rider's Seat
  - Knee Grip Covers
  - Fuel Tank
- Disconnect the ignition coil primary leads.
- Pull the plug caps off the spark plugs.
- Remove the ignition coil mounting nuts, and take off the coils.



A. Ignition Coils
B. Primary Leads
C. Plug Caps
D. Mounting Nuts

Ignition Coil Installation Notes

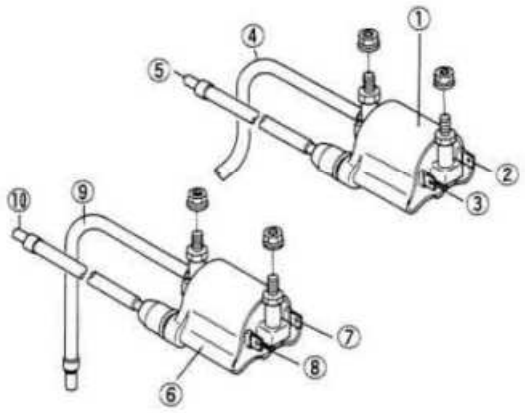
- Install the clamp for main harness with the left ignition coil (No. 1 & 4 ignition coil) front mounting nut.



A. Clamp
B. Ignition Coil
C. Main Harness

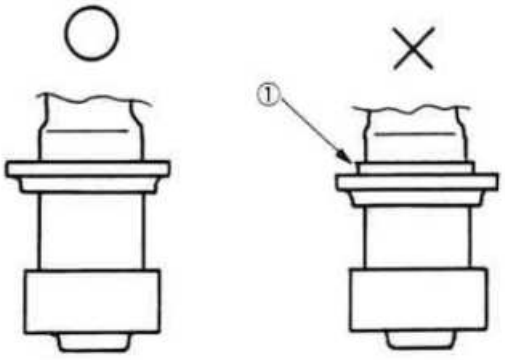
- Connect the primary leads to the ignition coil terminals as follows:

Primary Leads Connection



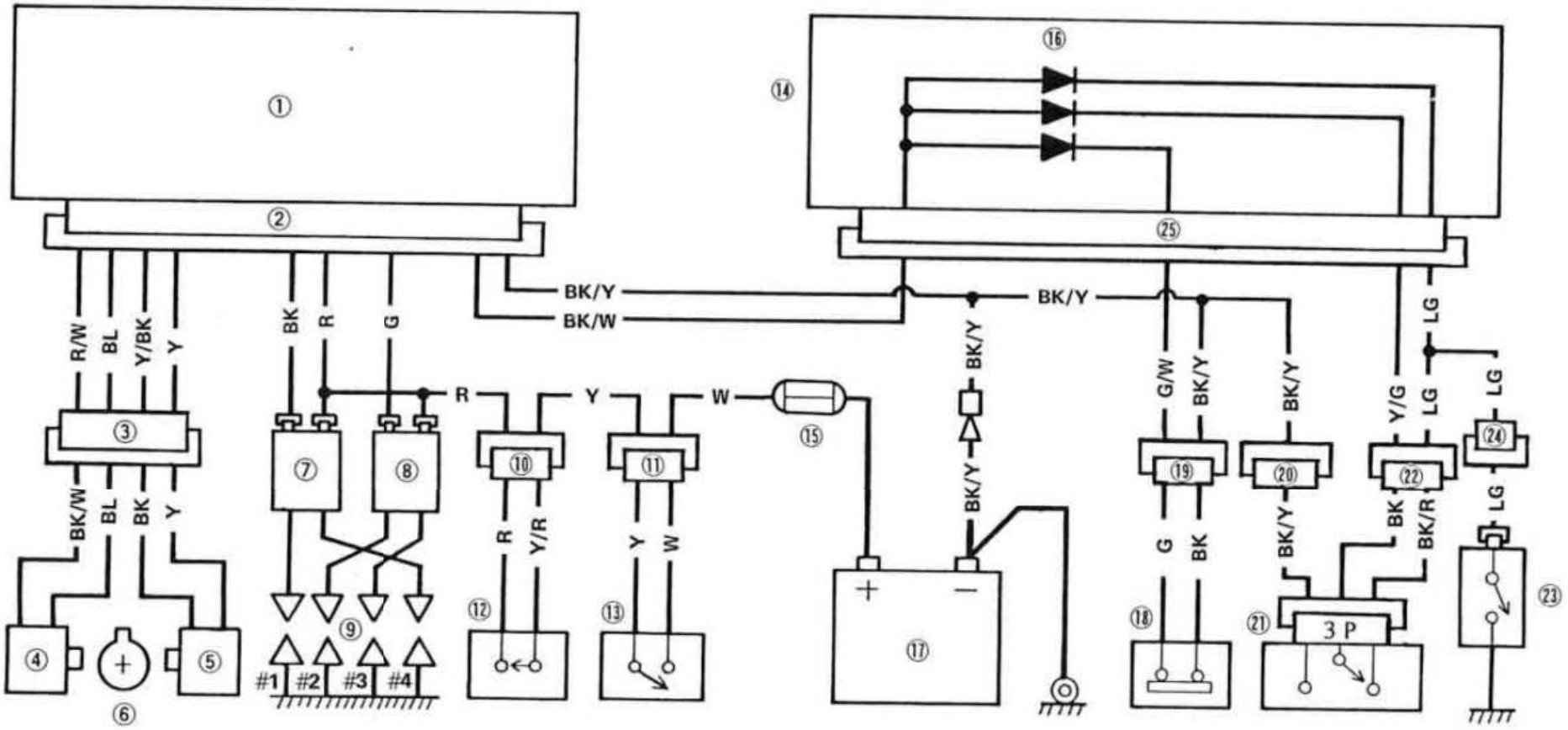
1. No.2 & 3 Ignition Coil (Right)
2. Connect Green Lead
3. Connect Red Lead
4. To No.3 Spark Plug
5. To No.2 Spark Plug
6. No.1 & 4 Ignition Coil (Left)
7. Connect Black Lead
8. Connect Red Lead
9. To No.4 Spark Plug
10. To No.1 Spark Plug

- Fit the plug cap grommet into the position flange correctly.



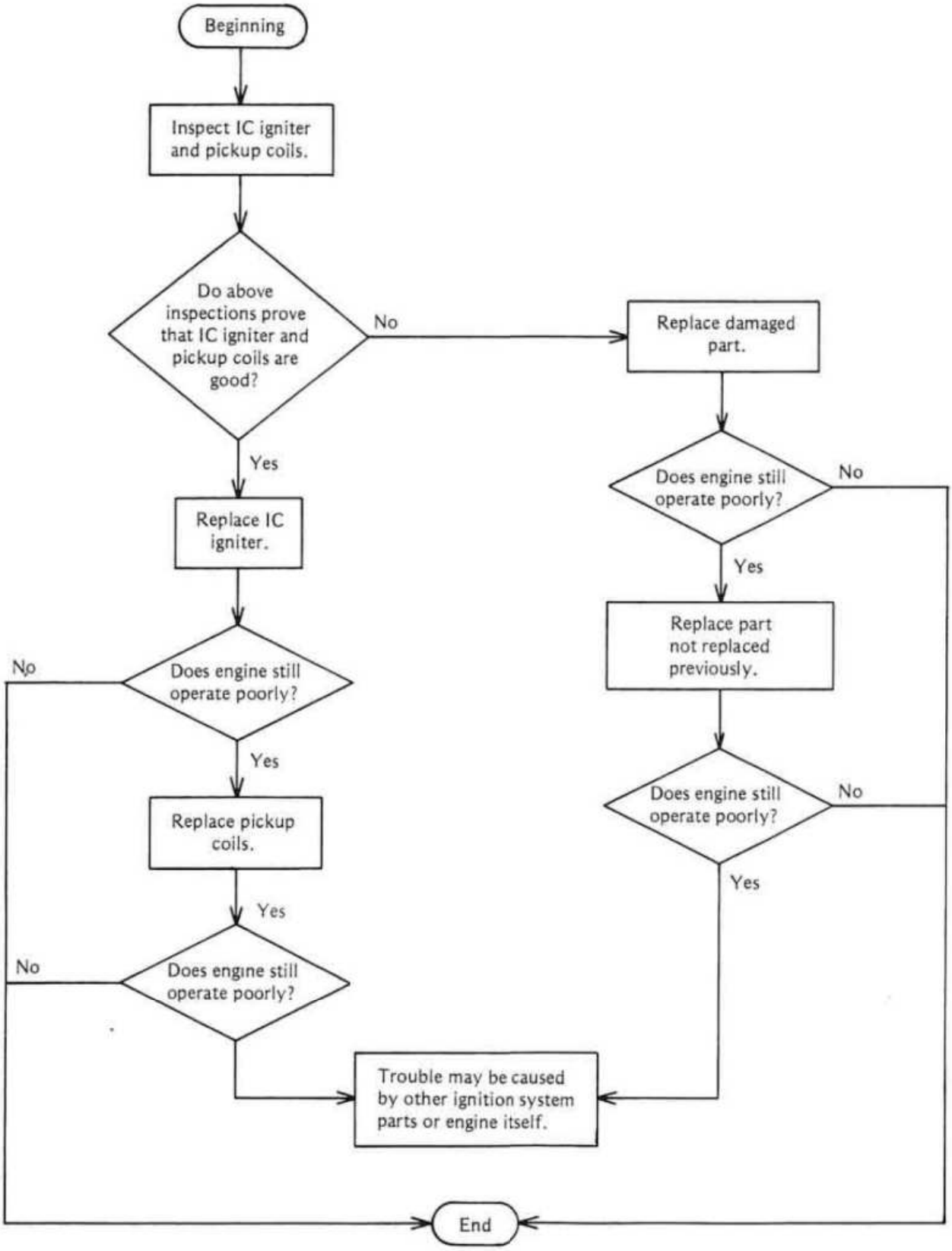
1. Here is not fit.

Ignition System Wiring Diagram



1. IC Igniter
2. IC Igniter 10-Pin Connector
3. Pickup Coil 4-Pin Connector
4. Pickup Coil for #2 and #3 Cylinders
5. Pickup Coil for #1 and #4 Cylinders
6. Timing Rotor
7. Ignition Coil for #1 and #4 Cylinders
8. Ignition Coil for #2 and #3 Cylinders
9. Spark Plugs
10. Engine Stop Switch 4-Pin Connector (US model: 6-Pin Connector)
11. Ignition Switch 6-Pin Connector
12. Engine Stop Switch
13. Ignition Switch
14. Junction Box
15. 30A Main Fuse
16. Diodes
17. Battery
18. Side Stand Switch
19. Side Stand Switch 2-Pin Connector
20. LH Switch 9-Pin Connector
21. Starter Lockout Switch
22. Starter Lockout Switch 2-Pin Connector
23. Neutral Switch
24. Alternator 4-Pin Connector
25. Junction Box 10-Pin Connector

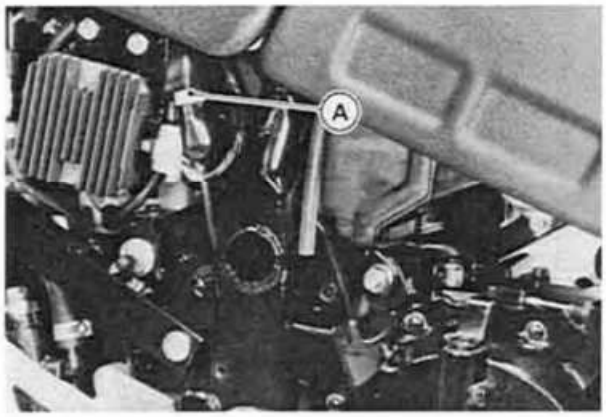
Ignition System Troubleshooting



Pickup Coil Inspection

See the Base Manual, noting the following.

○Remove the right side cover, and disconnect the pickup coil lead connector.



A. Pickup Coil Lead Connector

Ignition Coil Inspection

Measuring arcing distance:

See the Base Manual, noting the following.

○The most accurate test for determining the condition of the ignition coil is made by measuring arcing distance with the coil tester (special tool: 57001-1242) for the 3-needle method.

Measuring coil resistance:

See the Base Manual, noting the following.

Ignition Coil Winding Resistance

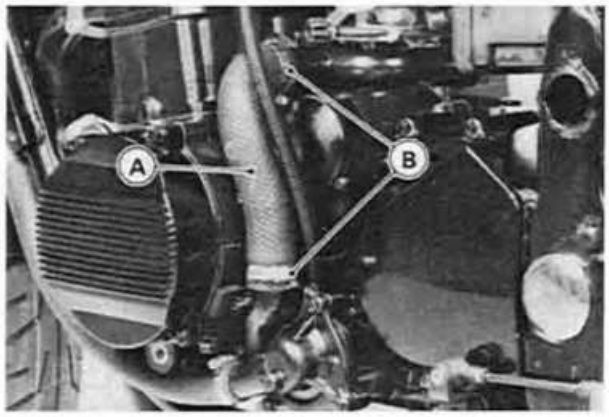
Primary windings:	**2.61 – 3.19 Ω**
Secondary windings :	**13.5 – 16.5 kΩ**

Electric Starter System

Starter Motor Removal

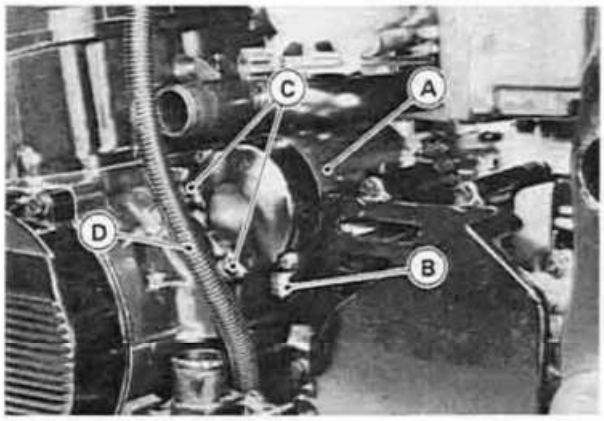
●Remove the following.

Rider's Seat
Knee Grip Covers
Lower Fairing
Upper Fairing
Coolant (Drain)
Left Side Cover
Water Pump Hose



A. Water Pump Hose B. Clamps

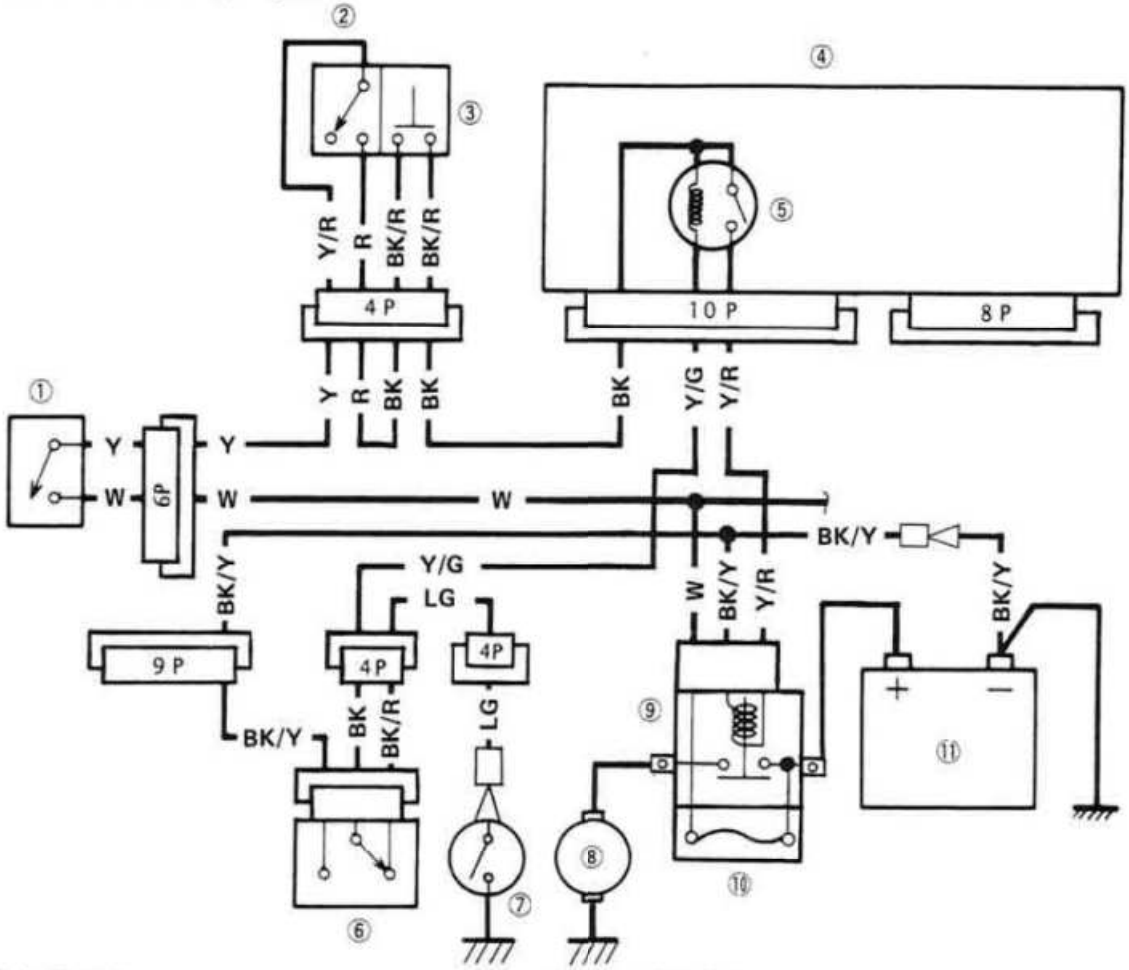
●Disconnect the starter motor terminal lead.



A. Starter Motor
B. Terminal
C. Mounting Bolts
D. Oil Hose

●Remove the starter motor mounting bolts, and pull off the starter motor toward the left.

Electric Starter Circuit Wiring Diagram

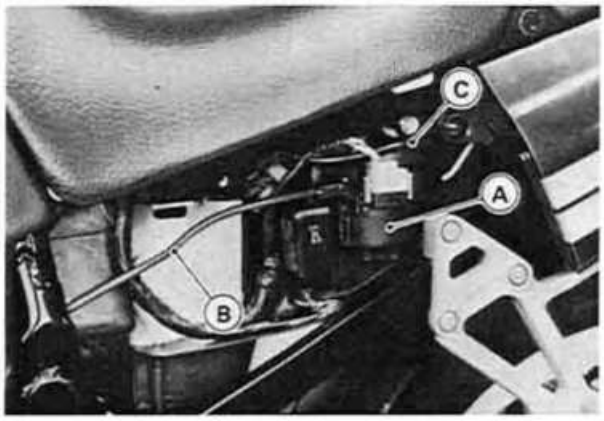


1. Ignition Switch
2. Engine Stop Switch
3. Starter Button
4. Junction Box
5. Starter Circuit Relay
6. Starter Lockout Switch
7. Neutral Switch
8. Starter Motor
9. Starter Relay
10. 30A Main Fuse
11. Battery

Starter Relay Inspection

See the Base Manual, noting the following.

●Remove the left side cover.



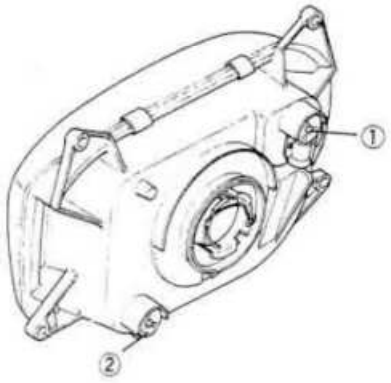
A. Starter Relay
B. Starter Motor Lead
C. Battery (+) Lead

Lighting System

See the Base Manual.

Headlight Beam Horizontal Adjustment

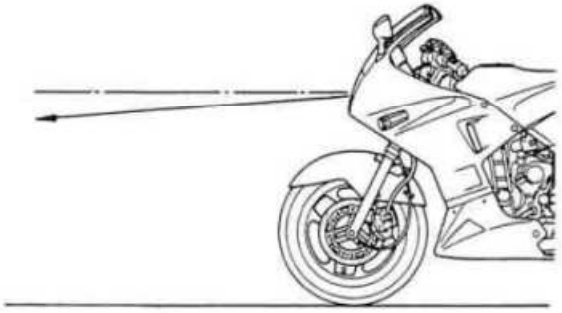
●Turn the upper adjuster on the headlight back in or out until the beam points straight ahead.



1. Horizontal Adjuster 2. Vertical Adjuster

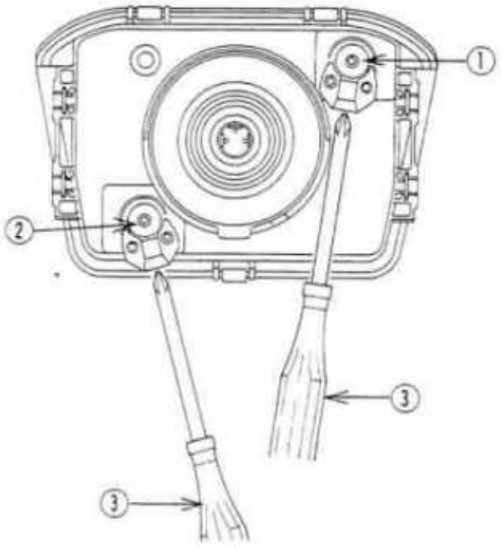
NOTE

○*On high beam, the brightest point should be slightly below horizontal with the motorcycle on its wheels and the rider seated. Adjust the headlight to the proper angle according to local regulations.*



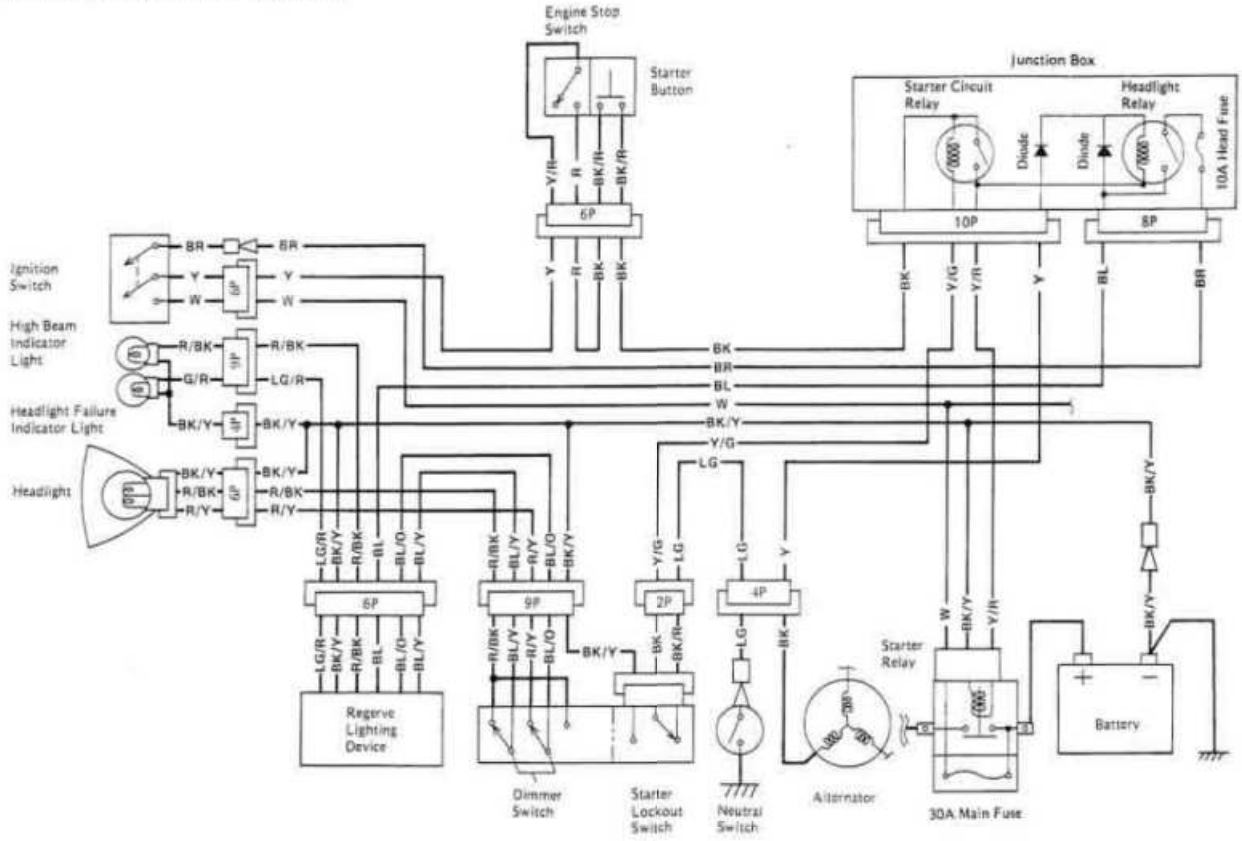
Headlight Beam Vertical Adjustment

●Turn the lower adjuster on the headlight back in or out to adjust the headlight vertically.

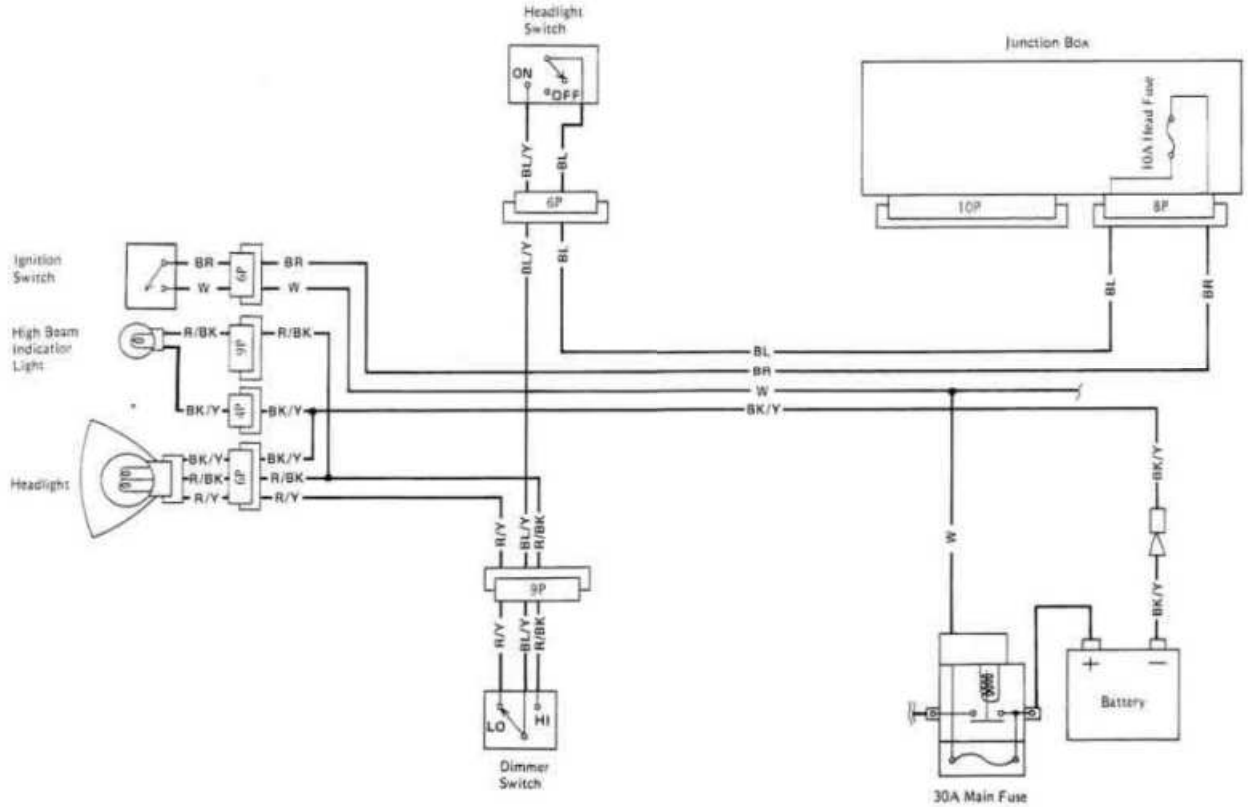


1. Horizontal Adjuster 3. Phillips Screwdriver
2. Vertical Adjuster

Headlight Circuit Wiring Diagram (US and Canadian Models Shown)



Headlight Circuit Wiring Diagram (European Model Shown)



Cooling Fan System

Fan System Circuit Inspection

- Remove the upper fairing (see Upper Fairing Removal in the Frame chapter).
- Disconnect the fan switch lead connector.
- Ground the black lead to the engine with a suitable lead.

★If the fan runs, inspect the fan switch.

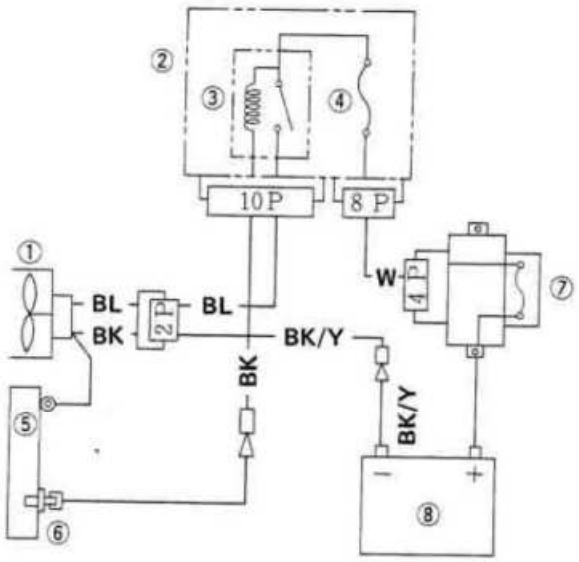
★If the fan does not run, inspect the following.
Fan Motor
Fan Relay and Fan Fuse (in the Junction Box)
Main Fuse

Fan Inspection

See the Base Manual, noting the following.

- Remove the upper fairing (see Upper Fairing Removal in the Frame chapter).

Cooling Fan Circuit Wiring Diagram



1. Cooling Fan
2. Junction Box
3. Fan Relay
4. 10A Fan Fuse
5. Radiator
6. Fan Switch
7. 30A Main Fuse
8. Battery

ESCS (Electric Suspension Control System)

ESCS Circuit Inspection

- Turn the ignition switch on.
- Pull the front brake lever, while listening for a "click" from the ESCS unit.

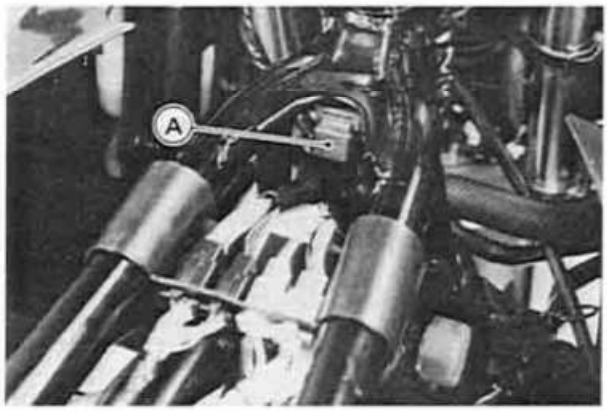
★If the "click" is not heard, inspect the following.
Front Brake Light Switch
ESCS Relay
ESCS Unit

★If the "click" is heard, inspect the rear brake pedal in the same manner.

☆If the "click" is not heard in this case, the ESCS circuit is normal. If the "click" is heard, inspect the ESCS diode.

ESCS Relay Inspection

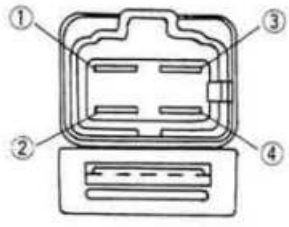
- Remove the fuel tank (see Fuel Tank Removl in the Fuel System chapter).
- Remove the ESCS relay, and disconnect the lead connector.



A. ESCS Relay

- Set the hand tester (special tool: 57001-983) to the x 10 Ω range, and measure the coil resistance at the coil side terminals on the relay.

ESCS Relay Terminals



1. BR Lead Terminal
2. BR/R Lead Terminal
3. BK/Y Lead Terminal
4. BL/R Lead Terminal

ESCS Relay Coil Resistance Measurement

Tester Range	:	**x 10 Ω**
Connection	:	**Coil Side Terminals**
		BL/R – Tester – BK/Y
Resistance	:	**90 – 110 Ω**

★If the tester reading is out of the specified range, replace the relay.
★If the reading is in the specified range, do the following.
●Connect a 12 V battery to the coil side terminals on the relay.
●Set the tester to the x 1 Ω range, and check for continuity between the switch side terminals on the relay.

ESCS Relay Inspection

Tester Range	:	**x 1 Ω**
Connection	:	**Switch Side Terminals**
		BR – Tester – BR/R
Result	:	**Conduct with operation should "click"**

★If it does not conduct, replace the relay.

ESCS Unit Inspection

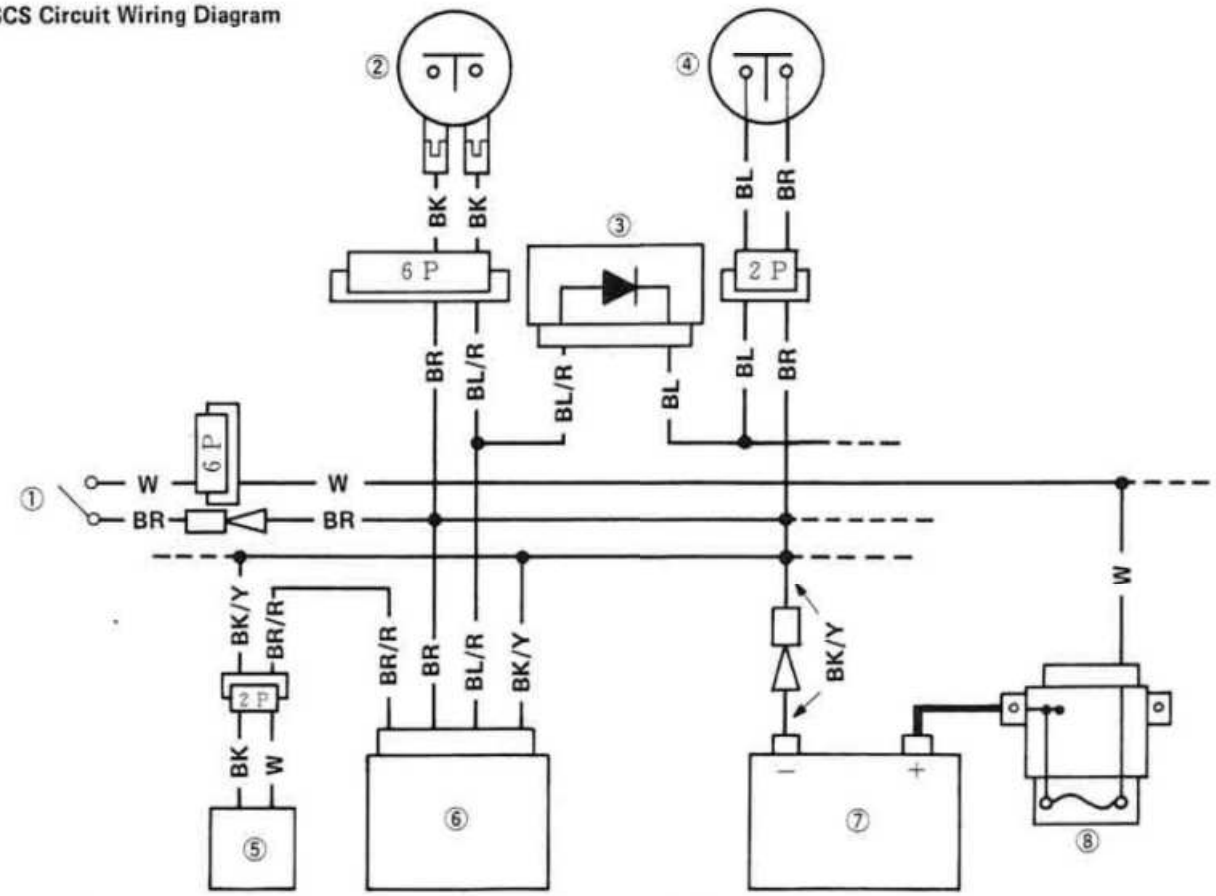
●Remove the fuel tank (see Fuel Tank Removal in the Fuel System chapter).
●Disconnect the ESCS lead connector.
●Connect a 12 V battery to the terminals in the unit side connector, and listen for the "click" from the ESCS unit.

ESCS Unit Inspection

Connection	:	**Battery (+) → W Lead Terminal**
		Battery (–) → BK Lead Terminal
Result	:	**The operation sound "click" is heard.**

★If the "click" is not heard, replace the ESCS unit.

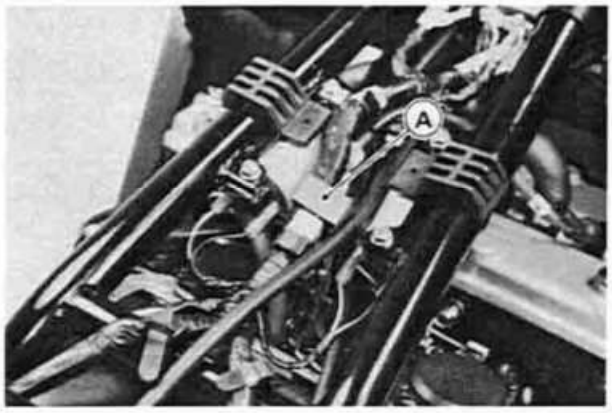
ESCS Circuit Wiring Diagram



1. Ignition Switch
2. Front Brake Light Switch
3. ESCS Diode
4. Rear Brake Light Switch
5. ESCS Unit
6. ESCS Relay
7. Battery
8. 30A Main Fuse

ESCS Diode Inspection

- Remove the fuel tank (see Fuel Tank Removal in the Fuel System chapter).
- Remove the ESCS diode.



A. ESCS Diode

- Set the hand tester (special tool: 57001-983) to the x 10 Ω or x 100 Ω range, and connect the tester leads to each diode's terminals to check the resistance in both directions.

○The resistance of diode should be low in one direction and more than ten times as much in the other direction.

ESCS Diode Inspection

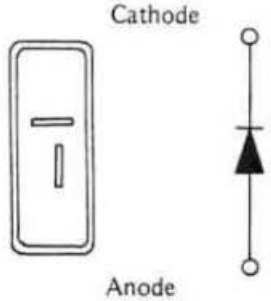
Tester Range	:	**x 10 Ω or x 100 Ω**
Connection	:	**Each Diode's Terminals**
		BL/R – Tester – BL

NOTE

○*The actual tester reading varies with tester used and the individual diode, but, generally speaking, the lower reading should be from zero to the first 1/2 of the scale.*

★If the tester reads low or high resistance in both directions, the diode is defective, and the ESCS diode must be replaced.

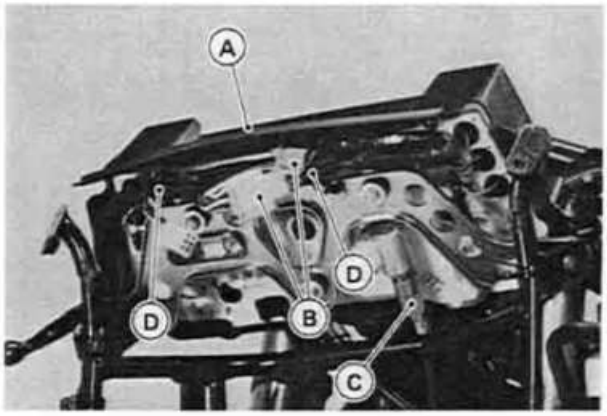
Polarity of Diode



Meters and Gauges

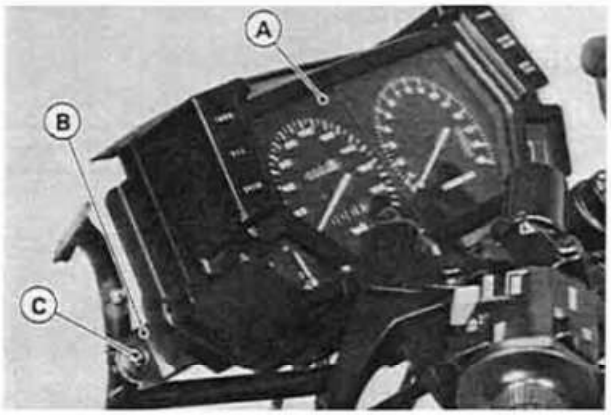
Meter Unit Removal

- Remove the following (see the Frame chapter).
  - Lower Fairing
  - Upper Fairing
- Disconnect the meter lead connectors.
- Disconnect the speedometer cable upper end.



A. Meter Unit
B. Connectors
C. Speedometer Cable Upper End
D. Clamp

- Remove the meter unit bracket mounting bolts, and take off the meter unit.



A. Meter Unit
B. Bracket
C. Mounting Bolt

- Separate the meter bracket from the meter unit.

CAUTION

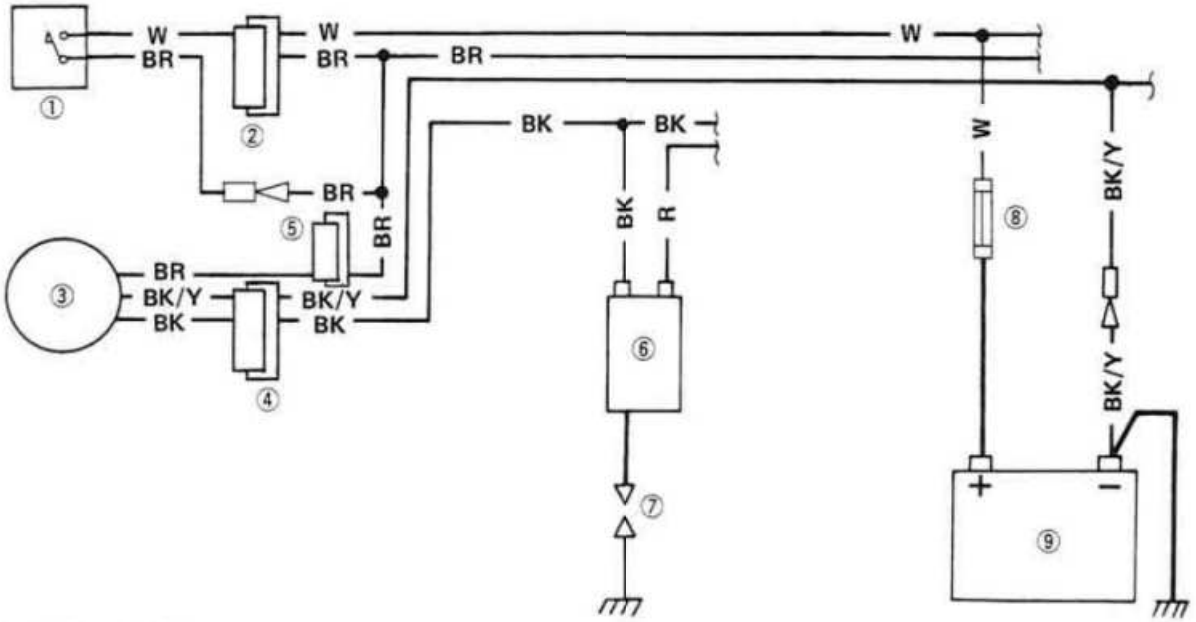
○**Place the meter or gauge so that the face is up. If a meter or gauge is left upside down or sideways for any length of time it will malfunction.**

Tachometer Inspection

●Check the tachometer circuit wiring.

★If all wiring, main fuse, ignition coil check out good, the unit is defective.

Tachometer Circuit Wiring Diagram

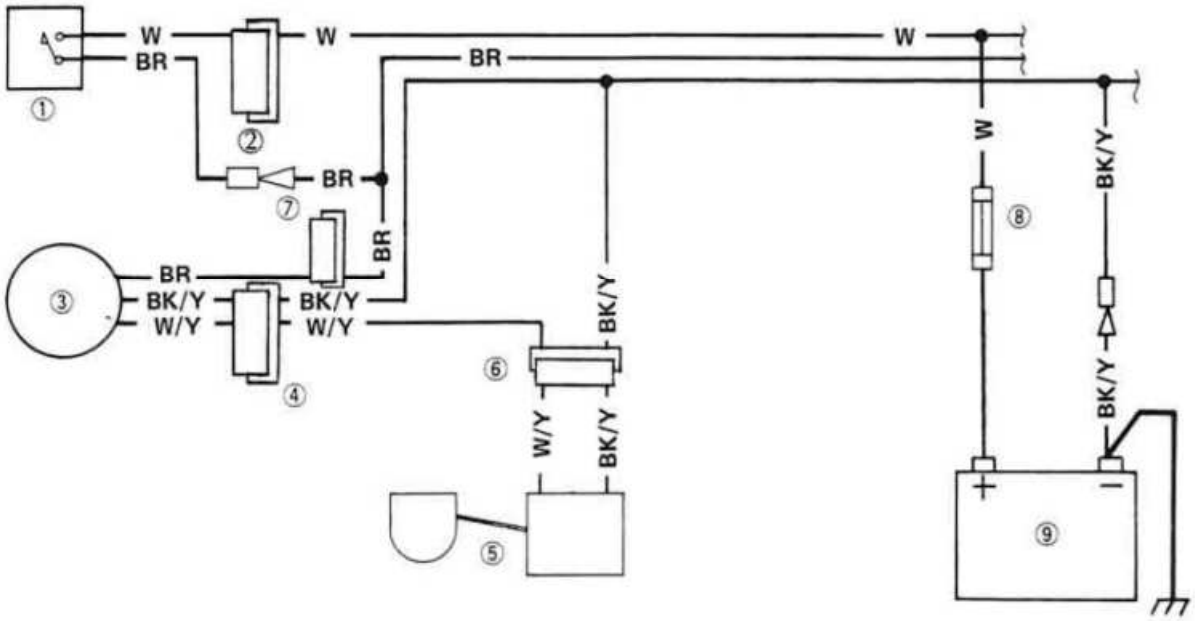


1. Ignition Switch
2. 6-Pin Connector
3. Tachometer
4. 4-Pin Connector
5. 9-Pin Connector
6. Ignition Coil (#1, #4)
7. Spark Plug
8. 30A Main Fuse
9. Battery

Fuel Gauge Operation Inspection

See the Base Manual, noting the following.

Fuel Gauge Circuit Wiring Diagram

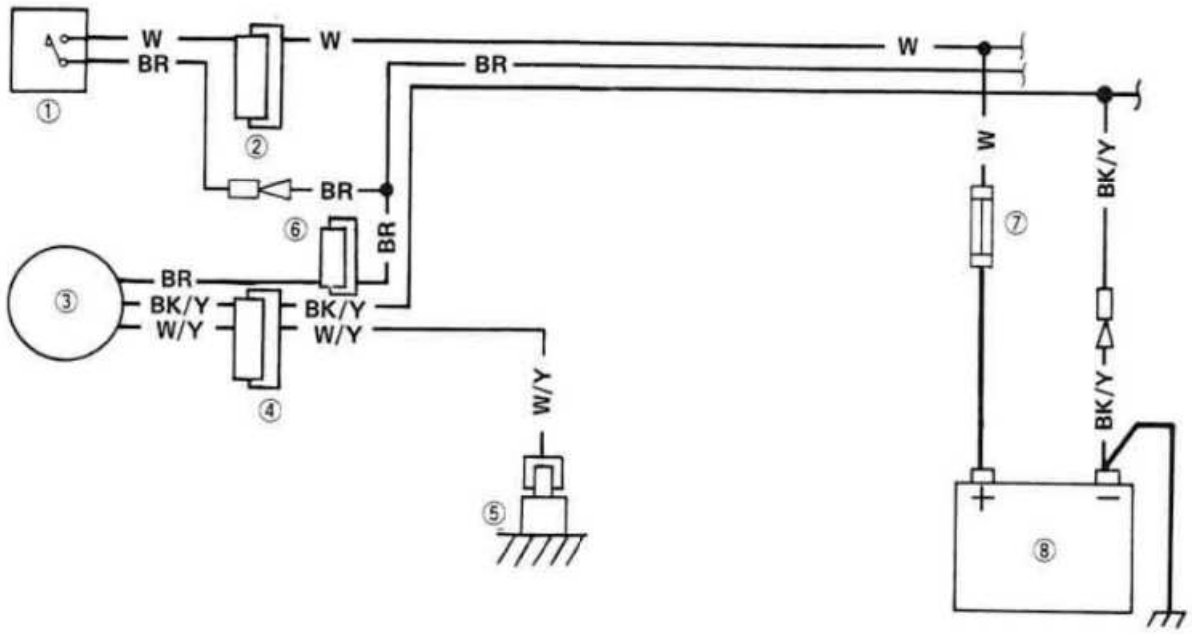


1. Ignition Switch
2. 6-Pin Connector
3. Fuel Gauge
4. 4-Pin Connector
5. Fuel Level Sensor
6. 2-Pin Connector
7. 9-Pin Connector
8. 30A Main Fuse
9. Battery

Water Temperature Gauge Operation Inspection

See the Base Manual, noting the following.

Water Temperature Gauge Circuit Wiring Diagram



1. Ignition Switch
2. 6-Pin Connector
3. Water Temperature Gauge
4. 4-Pin Connector
5. Water Temperature Sensor
6. 9-Pin Connector
7. 30A Main Fuse
8. Battery

Switches and Sensors

Switch Inspection

See the Base Manual, noting the following.

Front Brake Light Switch Connections

	BK	BK
When brake lever is pulled in	○——	——○

Starter Button Connections

	BK/R	BK/R
Free		
Push on	○——	——○

Turn Signal Switch Connections

	GY	O	G
R	○——	——○	
N (OFF, Push)			
L		○——	——○

Starter Lockout Switch Connections

	BK/Y	BK	BK/R
When clutch lever is pulled in	○——	——○	
When clutch lever is released		○——	——○

Side Stand Switch Connections

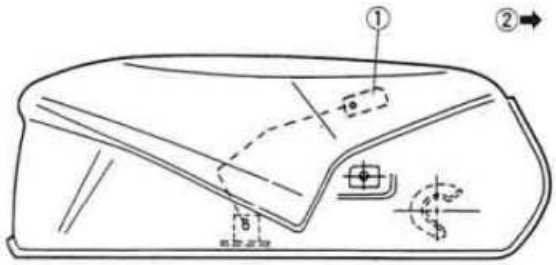
	G	BK
When side stand is up	○——	——○
When side stand is down		

Neutral Switch Connections

	LG (SW. Terminal)	⏚
When transmission is in neutral	○——	——○
When transmission is not in neutral		

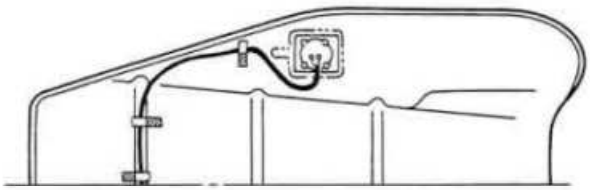
Fuel Level Sensor Installation Notes

•Install the fuel level sensor in the fuel tank so that the float is toward the front.



1. Float 2. Front

•Route the fuel level sensor lead as shown.



Fuel Level Sensor Inspection

See the Base Manual, noting the following.

Fuel Level Sensor Resistance

Full Position : 2 – 8 Ω
Empty Position : 90 – 100 Ω

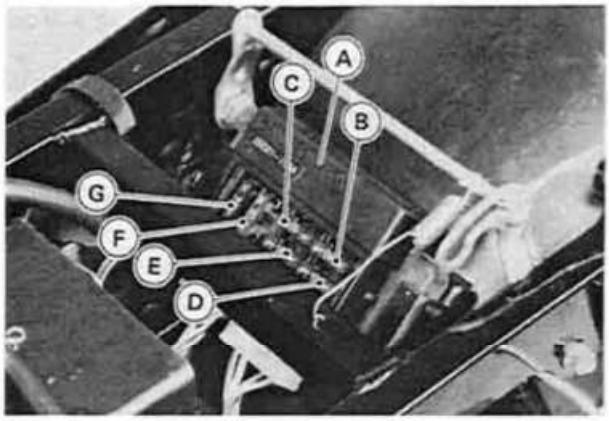
Junction Box

See the Base Manual.

For ZX600C/ZX500B, the 30A main fuse is not in the junction box but it is with the starter relay.

Fuse Installation Note

•Install the specified fuse in its place of the junction box in accordance with the arrangement plan on the back of box cover.



A. Junction Box
B. 10A Fuse for Taillight
C. 10A Fuse for Accessory (US, Canadian Models)
D. 10A Fuse for Headlight
E. 10A Fuse for Fan
F. 10A Spare Fuse
G. 30A Spare Fuse

Junction Box Fuse Circuit Inspection

Fuse Circuit Inspection

Meter Connection	Meter Range (Ω)
1 – 3 A/B	0 (US, Canadian Models) ∞

Fan, Starter Circuit and Headlight Relay Inspection

See the Base Manual, noting the following.

Relay Circuit Inspection (with the battery disconnected)

	Meter Connection	Meter Reading (Ω)
Fan Relay	2 – 5 4 – 5	∞ ∞
Headlight Relay	*7 – 8 *7 – 13	∞ ∞
Starter Relay	11 – 13 12 – 13	∞ ∞

Relay Circuit Inspection (with the battery connected)

	Meter Connection	Battery Connection + –	Meter Reading (Ω)
Fan	2 – 5	2 – 4	0
Headlight	*7 – 8	9 – 13	0
Starter	11 – 13	11 – 12	0

*US, Canadian Models only

Diode Circuit Inspection

See the Base Manual, noting the following.

Terminals for Diode Circuit Inspection

***13-8, *13-9, 12-14, 15-14, 16-14**

***US, Canadian Models only**

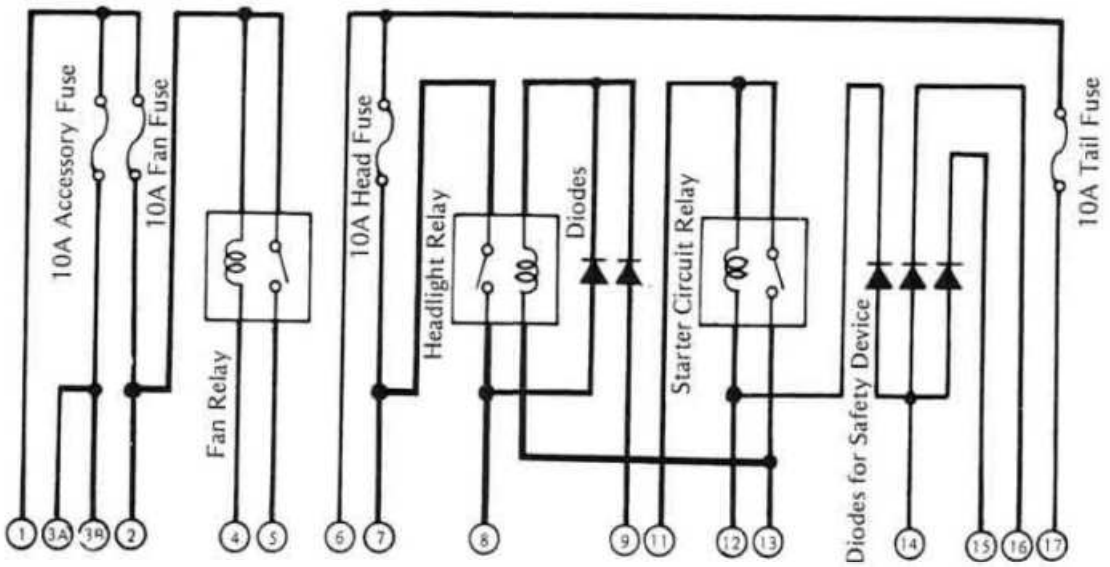
Electrical Wiring

Wiring Inspection

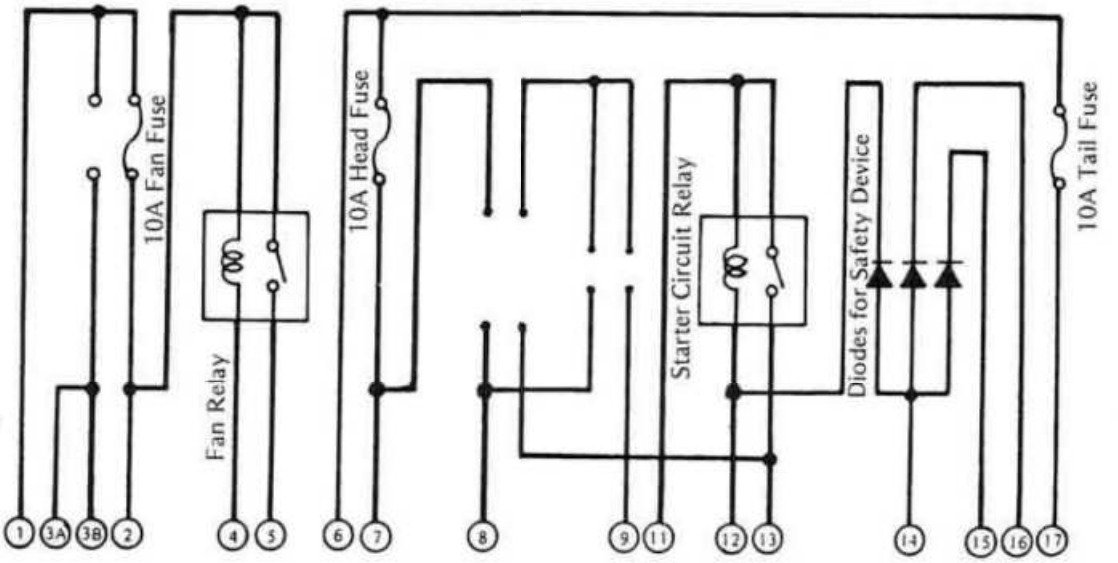
See the Base Manual, noting the following.

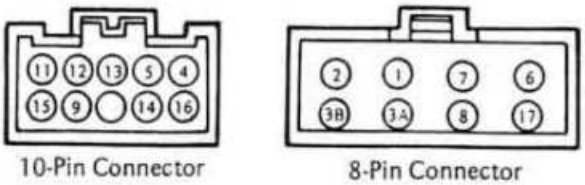
- For wiring routing, see Wire Routing in the General Information chapter.

Junction Box Internal Circuit (US, Canadian Models)



Junction Box Internal Circuit (Other than US/Canadian Models)





10-Pin Connector

8-Pin Connector

Appendix

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*.....Refer to Base Manual

Troubleshooting Guide

See the Base Manual, noting the following.

Handling and/or Stability Unsatisfactory:

Handlebar pulls to one side:
Frame bent
Wheels misaligned
Swing arm bent or twisted
Steering maladjusted
Front fork bent
Right/left fork oil level improper

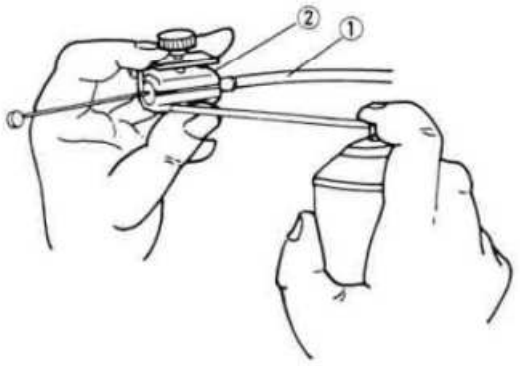
Shock absorption unsatisfactory:
(Too hard)
Front fork oil excessive
Front fork oil viscosity too high
Front fork bent
ESCS maladjusted or trouble
Rear shock absorber air pressure too high
Rear shock absorber maladjusted
Tire air pressure too high
(Too soft)
Front fork oil insufficient and/or leaking
Front fork oil viscosity too low
ESCS maladjusted or trouble
Front fork, rear shock absorber spring weak
Rear shock absorber oil leaking
Rear shock absorber maladjusted

General Lubrication

Lubrication

See the Base Manual, noting the following.

Cable Lubrication



1. Cable
2. Pressure Cable Luber: K56019-021