HONDA SERVICE DIVISION

MOTOR CYCLE SERVICE INFORMATION MANUAL

VOLUME XIX

INDEX

WORKSHOP MANUAL

VT500 CUSTOM

VT500E ADDENDUM

VT250F

WORKSHOP MANUAL

VT500E

IMPORTANT SAFETY NOTICE

WARNING *Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.*

CAUTION: *Indicates a possibility of personal injury or equipment damage if instructions are not followed.*

NOTE: Give helpful information.

Detalied descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains *some* warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnal or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neigher personal safety nor vehicle safety will be jeopardized by the service method or tools selected.

HONDA
VT500E

INTRODUCTION

This addendum contains information for the VT500E.
Refer to the base shop manual "VT 500C SHOP MANUAL" for service procedures and data not include in this addendum.

Throughout the manual, the following abbreviations are used to indentity individual modules.

CODE	AREA (TYPE)	CODE	AREA (TYPE)
ED	Ewope	B	Belgium
G	Germany	NL	Holland
SW	Switzerland	I	Italy
F	France		

TABLE OF CONTENTS

1. GENERAL INFORMATION..... 1— 1
   Specification..... 1— 1
   Torque values..... 1— 3
   Tools..... 1— 3
   Cable & harness routing..... 1— 6
   Wiring diagram..... 1—10.

2. MEINTENANCE
   Service information..... 2— 1
   Carbulator chock..... 2— 2
   Radiator coolant..... 2— 2
   Brake shoe/pad wear..... 2— 2
   Brake system..... 2— 3
   Headlight aim..... 2— 4

3. ENGINE REMOVAL/INSTALLATION. 3— 0
   Service information..... 3— 1
   Engine removal..... 3— 2
   Engine installation..... 3— 3

4. COOLING SYSTEM..... 4— 0
   Sercive information..... 4— 1
   Thermostat..... 4— 2

5. CLUTCH/GERA SHIFT..... 5— 0
   Service information..... 5— 1
   Right clanccase removal..... 5— 2

6. ALTERNATOR/STARTER CLUTCH.. 6— 0
   Service information..... 6— 1
   Startor removal..... 6— 2

7. FRONT WHEEL/SUSPENSION..... 7— 0
   Service information..... 7— 1
   Headlight..... 7— 2
   Turn signal..... 7— 5
   Instarument..... 7— 5
   Handlebar..... 7— 8
   Ignition switch..... 7—12
   Fuse holder..... 7—13
   Front wheel..... 7—14
   Front Fork..... 7—17

8. REAR WHEEL/SUSPENSION..... 8— 0
   Service information..... 8— 1
   Rear wheel..... 8— 2

9. HYDRAULIC BRAKE..... 9— 0
   Service information..... 9— 1
   Brake pad/disc..... 9— 2
   Master cylinder..... 9— 3
   Brake caliper..... 9— 4

10. SWITCHES.....10— 0
    Service information.....10— 1
    Handlebar switch.....10— 2

1. GENERAL INFORMATION

HONDA VT500E

SPECIFICATIONS	1- 1	CABLE & HARNESS ROUTING	1- 6
TORQUE VALUES	1- 3	WIRING DIAGRAM	1-10
TOOLS	1- 3		

SPECIFICATIONS

	ITEM		
DIMENSIONS	Overall length		2,195 mm (86.4 in)
	Overall width		760 mm (29.9 in)
	Overall height		1,195 mm (47.0 in)
	Wheelbase		1,480 mm (58.3 in)
	Seat height		770 mm (30.3 in)
	Foot peg height		R: 316 mm (12.4 in) L: 309 mm (12.1 in)
	Ground clearance		160 mm (6.3 in)
	Dry weight		177 kg (390 lbs)
	Curb weight		196 kg (432 lbs)
FRAME	Type		Double cradle
	Front suspension, travel		Telescopic fork, 150 mm (5.9 in)
	Rear suspension, travel		Swing arm/Shock absorber, 110 mm (4.3 in)
	Gross vehicle weight rating		395 kg (870 lbs)
	Vehicle capacity load		168 kg (370 lbs)
	Front tire size		100/90-18 56S
	Rear tire size		120/80-18 62S
	Cold tire pressures	Up to 90 kg (200 lbs) load Front	28 psi (200kPa, 2.00 kg/cm²)
		Up to 90 kg (200 lbs) load Rear	28 psi (200kPa, 2.00 kg/cm²)
		Up to vehicle capacity load Front	28 psi (200kPa, 2.00 kg/cm²)
		Up to vehicle capacity load Rear	36 psi (250kPa, 2.50 kg/cm²)
	Front brake, lining swept area		Single disc, 490 cm² (76.0 sq in)
	Rear brake, lining swept area		Drum, 176 cm² (27.3 sq in)
	Fuel capacity		12.0 liters (3.1 US gal, 2.64 Imp gal)
	Fuel reserve capacity		2.0 liters (0.53 US gal, 0.44 Imp gal)
	Caster angle		59°00'
	Trail		125 mm (4.9 in)
	Front fork oil capacity		360 cc (22.03 cu in)
	Front fork air pressure		(0—40 kPa 0—0.4 kg/cm² 0—6 psi)
ENGINE	Type		Water cooled 4-stroke twin SOHC engine
	Cylinder arrangement		2 cylinders 52° V
	Bore and stroke		71 × 62 mm (2.8 × 2.44 in)
	Displacement		490 cm³ (29.90 cu in)
	Compression ratio		10.5 : 1
	Valve train		Silent, multi-link chain drive and OHC with rocker arms
	Maximum horsepower		37kw (50ps)/9,000 min⁻¹(rpm), 20kw (27ps)/6,000 min⁻¹(rpm).....G II
	Maximum torque		45N·m (4.6kg·m)/7,000 min⁻¹(rpm), 41.6N·m (4.2kg·m)/3,000 min⁻¹(rpm).....G II
	Oil capacity		3.0 liters (3.2 US qt, 1.5 Imp qt) after disassembly 2.5 liters (2.6 US qt, 2.2 Imp qt) after draining
	Coolant capacity		2.0 liters (2.1/US qt, 1.4 Imp qt)
	Lubrication system		Forced pressure and wet sump
	Air filtration		Urethane foam
	Cylinder compression		12 ± 2kg/cm² (171 ± 28 psi)
	Intake valve	Opens	10° (BTDC) } at 1 mm lift
		Closes	40° (ABDC) } at 1 mm lift
	Exhaust valve	Opens	40° (BBDC) } at 1mm lift .....G II
		Closes	10° (ATDC) } at 1 mm lift
	Engine weight		64 kg (141 lb)
	Idle speed		1,100 rpm

ITEM		
CARBURETION	Carburetor, venturi dia	32 mm (1.3 in) Vertical
	Identification number	VD6UA, ...VD6QA, G II, VD6YA...SW
	Pilot screw initial setting	2 1/4 Turns out
	Float level	6.8 mm (0.27 in)
DRIVE TRAIN	Clutch	Wet, multi-plate
	Transmission	5 speed with over drive
	Primary reduction	1.763 : 1
	Secondary reduction	0.912 : 1
	Final reduction	3.181 : 1
	Gear ratio I	2.733 : 1
	Gear ratio II	1.947 : 1
	Gear ratio III	1.545 : 1
	Gear ratio IV	1.280 : 1
	Gear ratio V	1.074 : 1
	Over drive	0.931 : 1
	Gear shift pattern	Left foot operated return system, 1—N—2—3—4—5—OD
	Final drive gear oil capacity	150 cc (5.1 oz) after disassembly 120 cc (4.1 oz) after draining
ELECTRICAL	Ignition	Full transistor ignition
	Ignition timing "F" mark	10° BTDC at 4,000 rpm
	Full advance	32.5° BTDC at idle
	Pulse air gap	0.3—0.9 mm (0.012—0.035 in)
	Starting system	Starting motor
	Alternator	370 W/5,000 rpm
	Battery capacity	12V — 12 AH
	Spark plug	See table below
	Spark plug gap	0.8—0.9 mm (0.031—0.035 in)
	Fuse/Main fuse	10 A, 15 A/30 A
LIGHTS	Headlight (high/low beam)	60/55 W
	Tail/brake light	5/21 W
	Front turn signal/running light	21 W
	Rear turn signal	21 W
	Instrument lights	3 W × 3
	Neutral indicator	3 W
	Turn signal indicator	3 W × 2
	High beam indicator	3 W
	Position light	4 W
	Oil pressure warning light	3 W
	Tail/brake warning light	3 W

Spark plug	NGK	ND
Standard	DPR8EA-9	X24EPR-U9
For cold climate (Below 5°C, 41° F)	DPR7EA-9	X22EPR-U9
For extended high speed riding	DPR9EA-9	X27EPR-U9

TORQUE VALUES

- CHASSIS

Item	Q'ty	Thread Dia. (mm)	Torque N·m (kg-m, ft-lb)	Remarks
Axle holder nuts	2	8	18-25 (1.8-2.5, 13-18)	
Brake arm	1	8	8-12 (0.8-1.2, 6-9)	
Pad pin bolt	1	6	15-20 (1.5-2.0, 11-14)	
Disc cover bolt	3	6	8-12 (0.8-1.2, 6-9)	
Caliper pin bolt (upper)	1	8	20-25 (2.0-2.5, 14-18)	
(lower)	1	8	15-20 (1.5-2.0, 11-14)	

TOOLS

- SPECIAL

DESCRIPTION	NUMBER	REMARKS
Oil press gauge attachment	07510—MA70000	Oil pressure
Vaccum gauge attachment A	07510—3000100	Carburetor synchronaization
Tappet adjust wrench	07908—KE90000	Valve tappet
Sliding puller set	07736—0010000	Side gear
		┌ Sliding shaft 07736—0010100
		├ Theaded adapter 07736—0010200
		└ Sliding weight 07741—0010201
Lock nut wrench	07908—ME90000	Swing arm
Retainer wrench	07910—MA10100	Final gear
Snap ring plier	07914—3230001	Front fork
Lock nut wrench 30/64 mm	07916—MB00000	Side gear
Lock nut wrench 34/44 mm	07916—ME50000	Side gear
Hollow set wrench 6 mm	07917—3230000	Front fork
Bit socket 10 mm	07917—3710000	Swing arm
Clutch center holder	07923—KE10000	Clutch
Gear holder	07923—ME90000	Primary bolt
Pinion holder	07924—ME40000	Final gear
Shaft holder	07924—ME50000	Side gear
Flywheel holder	07925—ME90000	Alternator rotor
Shaft puller	07931—ME40000	Final gear
Bearing remover	07936—4150000	Swing arm
Slider weight	07741—0010201	Swing arm
Bearing remover	07936—3710001	Main, Counter bearing
		┌ Spindle remover 07936—3710600
		├ Remover handle 07936—3710100
		└ Slider weight 07741—0010201

DESCRIPTION	NUMBER	REMARKS
Bearing remover	07936—8890100	Final gear Spindle remover 07936—8890100 Slider weight 07741—0010201
Bearing remover	07936—KC10000	Side gear
Valve guide driver attachment (IN)	07943—MF50100	Valve guide
(EX)	07943—MF50200	Valve guide
Bearing driver	07945—3330100	Final gear
Bearing driver attachment B	07946—3710200	Main, counter bearing
Ball race driver set	07946—3710400	Steering
Ball race driver	07946—3710701	Final gear
Steering stem driver	07946—MB00000	Steering
Main bearing driver attachment	07946—MF50100	Mainshaft bearing
Main bearing driver attachment	07946—MF50200	Mainshaft bearing
Fork seal driver	07947—3710101	Front fork
Compressor attachment kit	07959—MB10000	Rear cushion
Damper compressor	07964—ME90000	Side gear
Valve guide reamer	07984—2000000	Valve guide
	07984—6570100	Valve guide

• COMMON

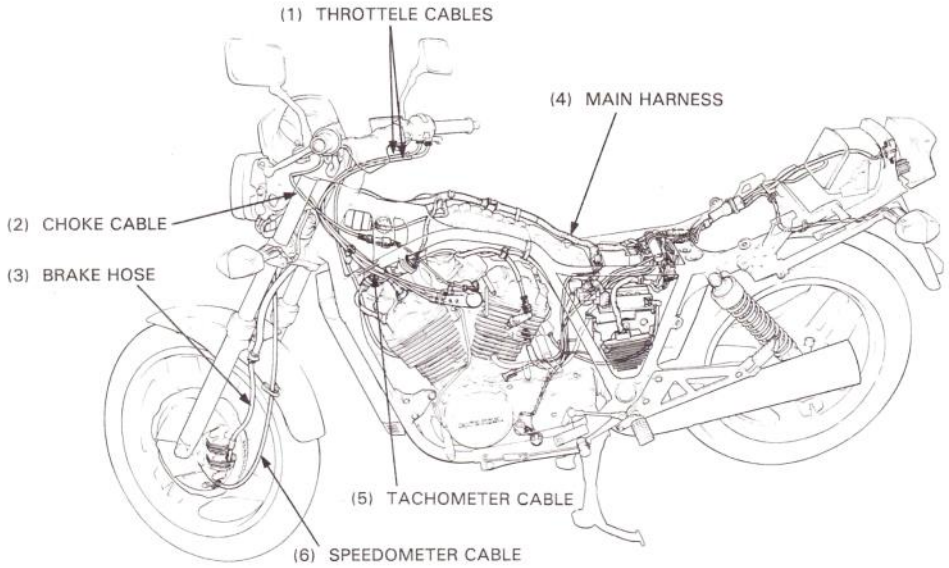
DESCRIPTION	NUMBER	REMARKS
Float level gauge	07401—0010000	Carburetor
Pin spanner	07702—0020000	Steering
Tappet wrench 10 × 12 mm	07708—0030200	Valve tappet
Wrench 30 × 32 mm	07716—0020400	Steering stem nut
Extention bar	07716—0020500	
Rotor puller	07733—0020001	Flywheel
Valve guide remover 5.5 mm	07742—0010100	Valve guide
6.6 mm	07742—0010200	Valve guide
Outer driver 32 × 35 mm	07746—0010100	Swing arm, Final gear
37 × 40 mm	07746—0010200	Rear wheel
Driver pilot 17 mm	07746—0040400	Rear wheel
Outer driver 42 × 47 mm	07746—0010300	Front wheel, Final gear
Driver pilot 15 mm	07746—0040300	Front wheel, Counter bearing
20 mm	07746—0040500	Front wheel, Counter bearing
Outer driver 57 × 55 mm	07746—0010400	Final gear
Driver pilot 30 mm	07746—0040700	Final gear

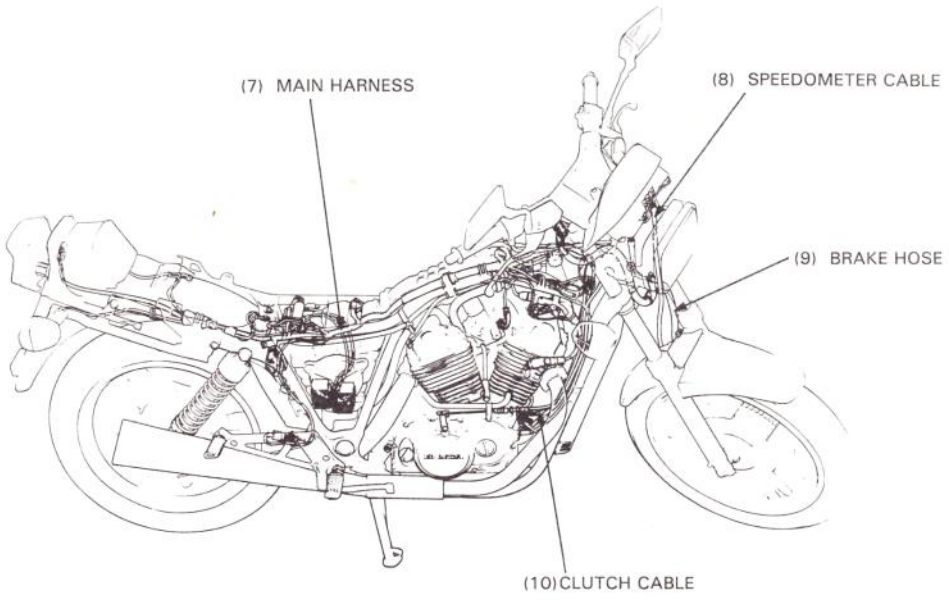
DESCRIPTION	NUMBER	REMARKS
Driver pilot 22 mm	07746–0041000	Final gear
Inner handle B	07746–0020100	Final gear
Inner driver 30 mm	07746–0030300	Side gear
Inner handle C	07746–0030100	Final gear
Inner driver 35 mm	07746–0030300	Final gear
Head remover 15 mm	07746–0050400	Front wheel
Shaft remover	07746–0050100	Front wheel, Rear wheel
Head remover 17 mm	07746–0050500	Rear wheel
Handle outer A	07749–0010000	Handle bar
Valve spring compressor	07757–0010000	Valve spring
Shock absorber compressor	07959–3290001	Rear cushion

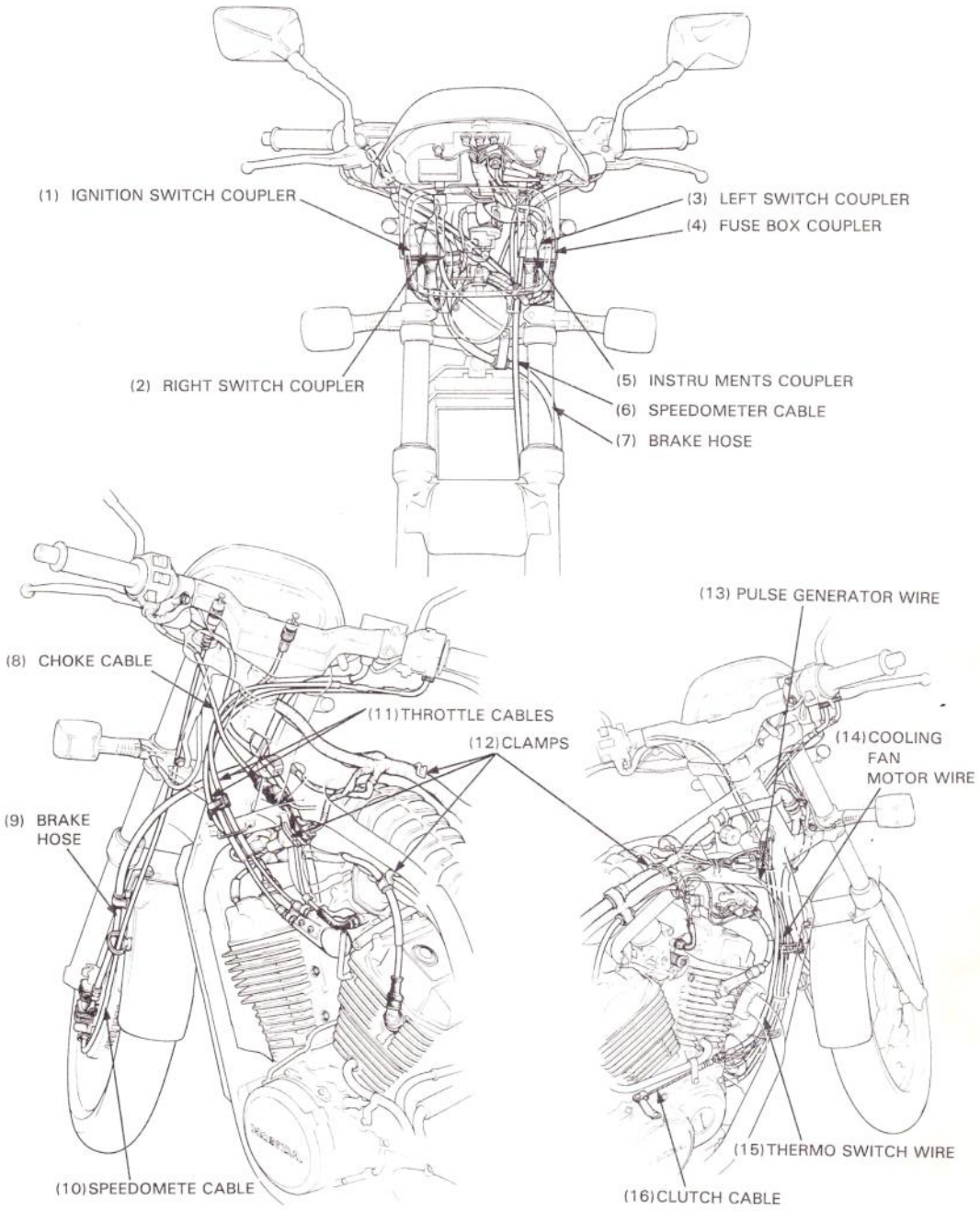
• OPTION

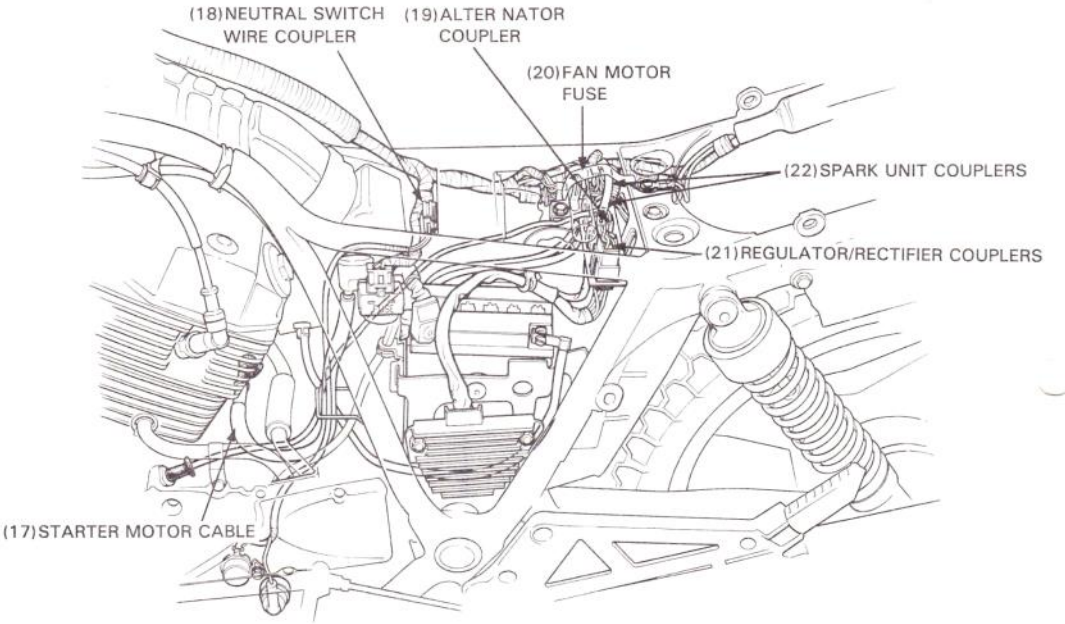
DESCRIPTION	NUMBER	REMARKS
Oil pressor gauge	07506–3000000	
Vaccum gauge tester	07404–0020000	
Seet cutter 29 mm	07780–0010300	IN 45°
35 mm	07780–0010400	EX 45°
Interior cutter 30 mm	07780–0014000	IN 60°
37.5 mm	07780–0014100	EX 60°
Flat cutter 30 mm	07780–0012200	IN 32°
35 mm	07780–0012300	EX 32°
Cutter holder 5.5 mm	07781–0010101	IN
6 mm	07781–0010201	EX

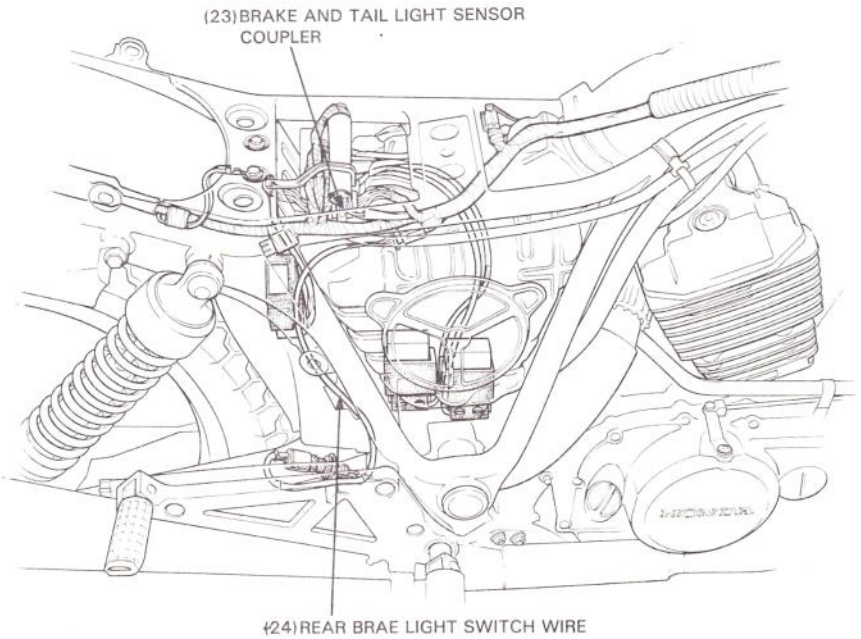
CABLE & HARNESS ROUTING

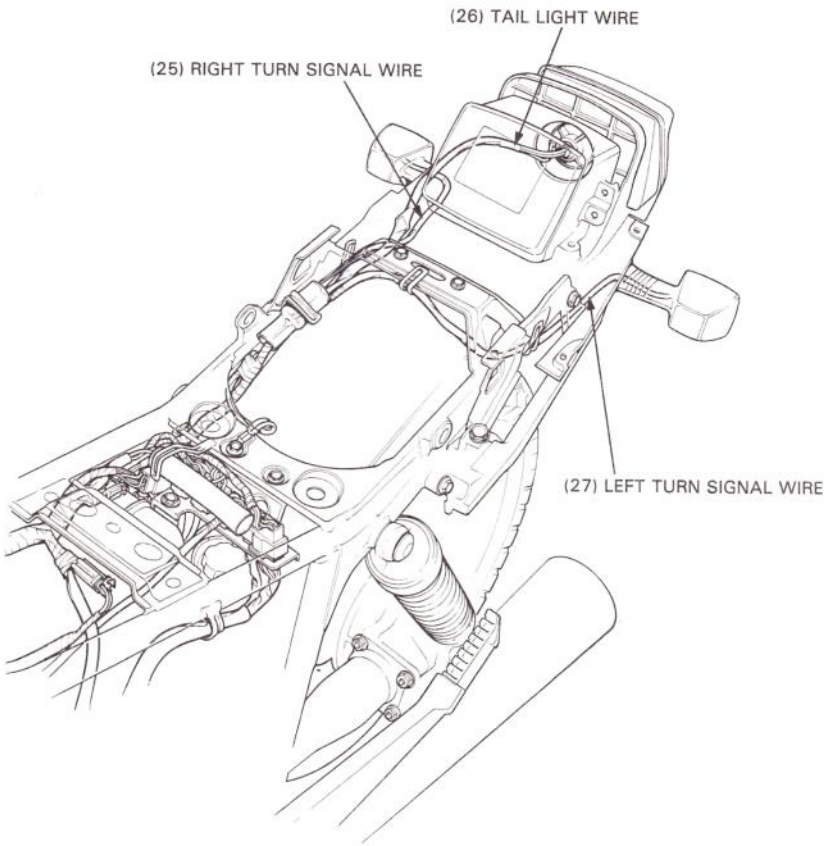





(1) IGNITION SWITCH COUPLER
(2) RIGHT SWITCH COUPLER
(3) LEFT SWITCH COUPLER
(4) FUSE BOX COUPLER
(5) INSTRU MENTS COUPLER
(6) SPEEDOMETER CABLE
(7) BRAKE HOSE
(8) CHOKE CABLE
(9) BRAKE HOSE
(10) SPEEDOMETE CABLE
(11) THROTTLE CABLES
(12) CLAMPS
(13) PULSE GENERATOR WIRE
(14) COOLING FAN MOTOR WIRE
(15) THERMO SWITCH WIRE
(16) CLUTCH CABLE

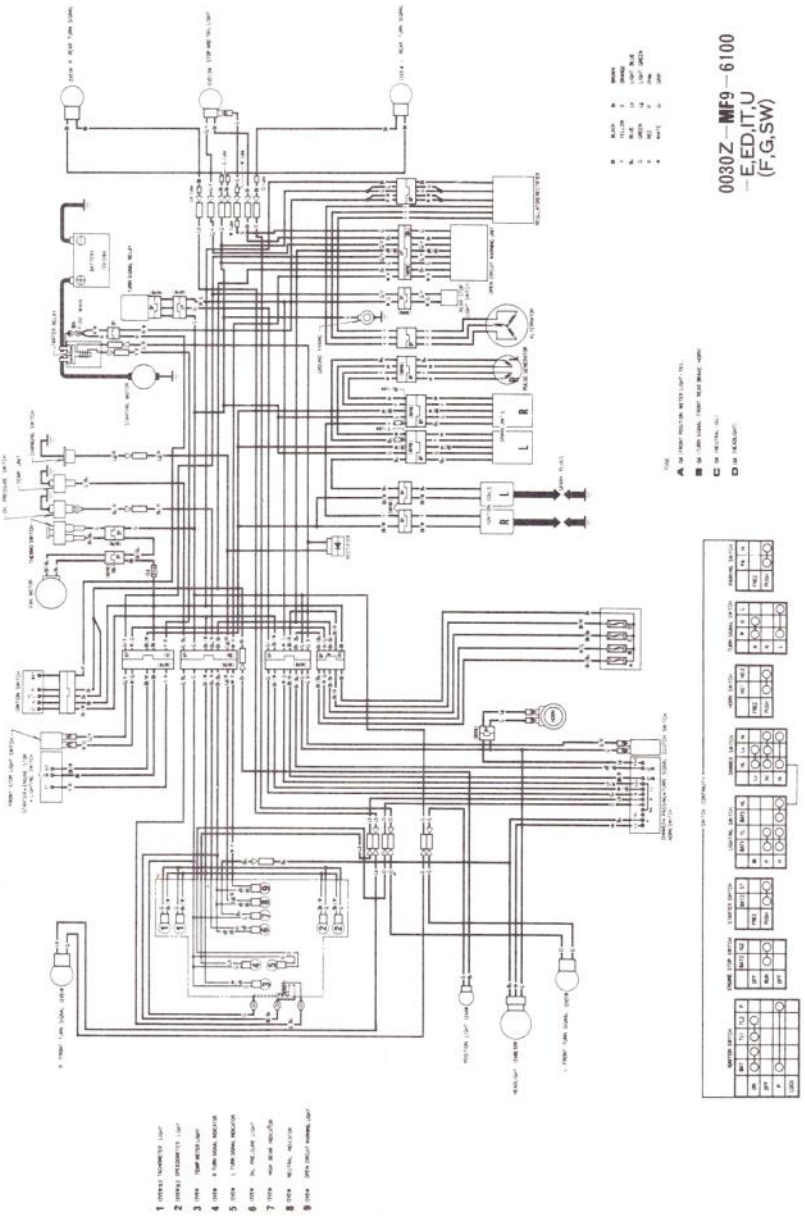

(18)NEUTRAL SWITCH WIRE COUPLER
(19)ALTER NATOR COUPLER
(20)FAN MOTOR FUSE
(22)SPARK UNIT COUPLERS
(21)REGULATOR/RECTIFIER COUPLERS
(17)STARTER MOTOR CABLE


(23)BRAKE AND TAIL LIGHT SENSOR COUPLER
(24)REAR BRAE LIGHT SWITCH WIRE


(26) TAIL LIGHT WIRE
(25) RIGHT TURN SIGNAL WIRE
(27) LEFT TURN SIGNAL WIRE

WIRING DIAGRAM

VT500E



2. MAINTENANCE

SERVICE INFORMATION	2- 1	BRAKE SHOE/PAD WEAR	2- 2
CARBURETOR CHOKE	2- 2	BRAKE SYSTEM	2- 3
RADIATOR COOLANT	2- 2	HEADLIGHT AIM	2- 4

SERVICE INFORMATION

SPECIFICATIONS

Spark plug:

Standard		For cold climate (below 5°C, 41°F)		For extended high speed riding	
NGK	ND	NGK	ND	NGK	ND
DPR8EA-9	X24EPR-U9	DPR7EA-9	X22EPR-U9	DPR9EA-9	X27EPR-U9

Spark plug gap: 0.8—0.9 mm (0.031—0.035 in)

Valve clearance	IN	0.10 mm (0.004 in)
	EX	0.10 mm (0.004 in)
Ignition timing		
AT idle:		10° BTDC
Full advance:		32.5° BTDC at 4,000 rpm
Idle speed:		1,100 ± 100 rpm
Carburetor synchronization:		Both carburetors within 40 mm (1.6 in) Hg of each other
Cylinder compression:		12 ± 2 kg/cm² (171 ± 28 psi)
Throttle grip free play:		2—6 mm (1/8—1/4 in)
Rear brake pedal free play:		20—30 mm (3/4—1-1/4 in)
Clutch lever free play:		10—20 mm (3/8—3/4 in)
Front fork air pressure:		0—6 psi (0—40 kPa, 0—0.4 kg/cm²)

Tire:

Tire size		Front	Rear
		100/90—18 56S	120/80—18 62S
Cold tire pressure, psi (kPa, kg/cm²)	Up to 90 kg (200 lbs) load	28 (200, 2.00)	28 (200, 2.00)
	90 kg (200 lbs)load to vehicle capacity load	28 (200, 2.00)	36 (250, 2.50)
Tire brand	Bridgestone	L303	G508
	Dunlop	E11	K627

TOOL

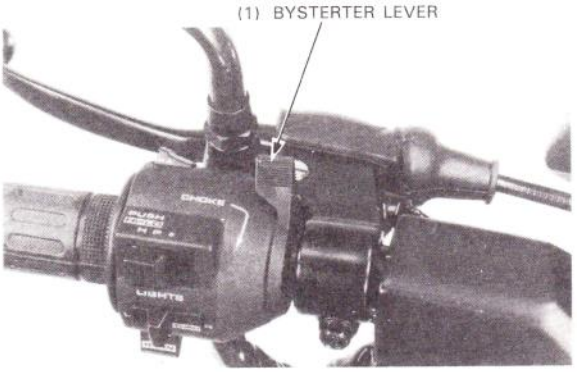
Special:
Tappet adjusting wrench 07908-KE90000

Common:
Tappet wrench 07708-0030200

Option:
Vaccum gauge set 07404-0020000

CARBULATOR CHOCK

The VT500E choke system uses a fuel enrichening circuit controlled by a bysterter valve. The bystarter valve opens the enrichening circuit via a cable when the bysterter lever on the handlebar is pushed down.



RADIATOR COOLANT

Remove the frame left side cover.

Check the coolant level of the reserve tank with the engine runing at normal operating temperatur. The level should be between the "UPPER" and "LOW" level lines.

If necessary, remove the seat and the reserve tank cap and fill to the "UPPER" level line with a 50/50 mixture of distilled water and anti-freeze.

Reinstall the cap, seat, and frame side cover.

BRAKE SHOE/PAD WOAR

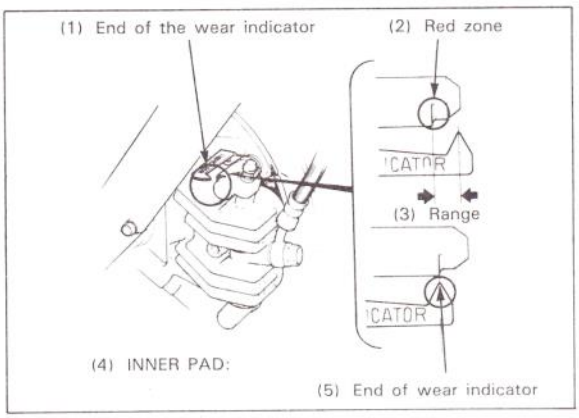
Operate the front brake lever all the way and check the brake pads for wear.

NOTE

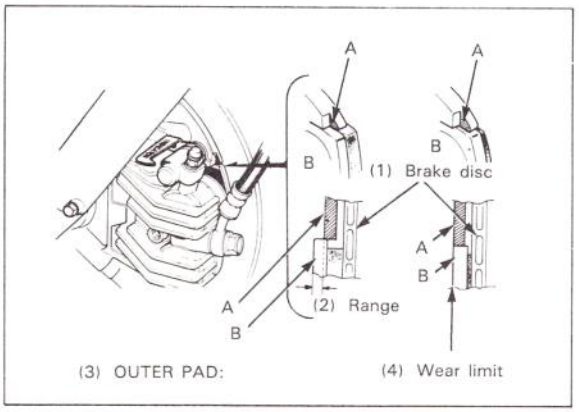
Always check the right and left pads one by one.

Replace the brake pads as a set, when the pads are worn excessively.

INNER PAD:
Replace the inner pad if the end of the wear indicator aligns with the red zone.



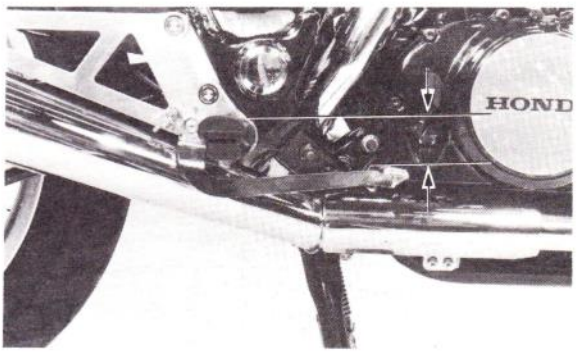
OUTER PAD:
Replace the pad if the surface A (back of the brake pad) aligns with the surface B (wear indicator on the caliper bracket).



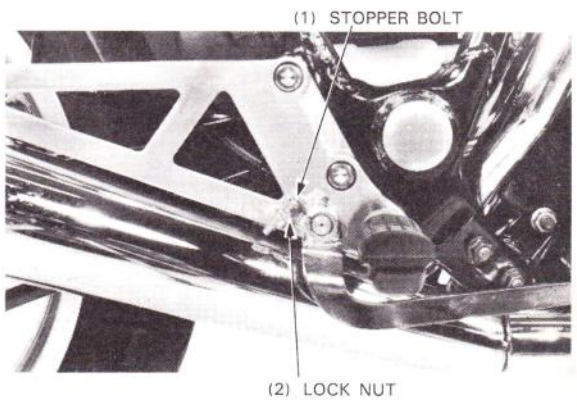
BRAKE SYSTEM

BRAKE PEDAL HEIGHT

Adjust brake pedal height so the pedal is 20—30 mm (3/4—1-1/4in) under the top of the foot peg.

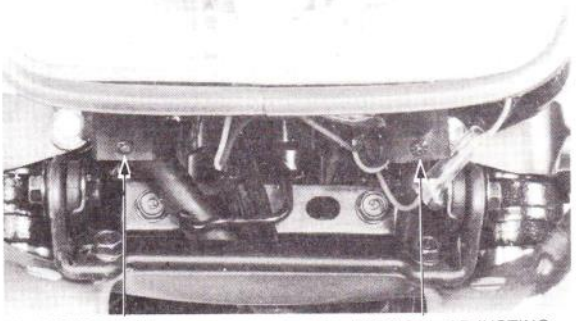


To adjust:
Loosen the pedal height, loosen the lock nut and turn the stopper bolt.



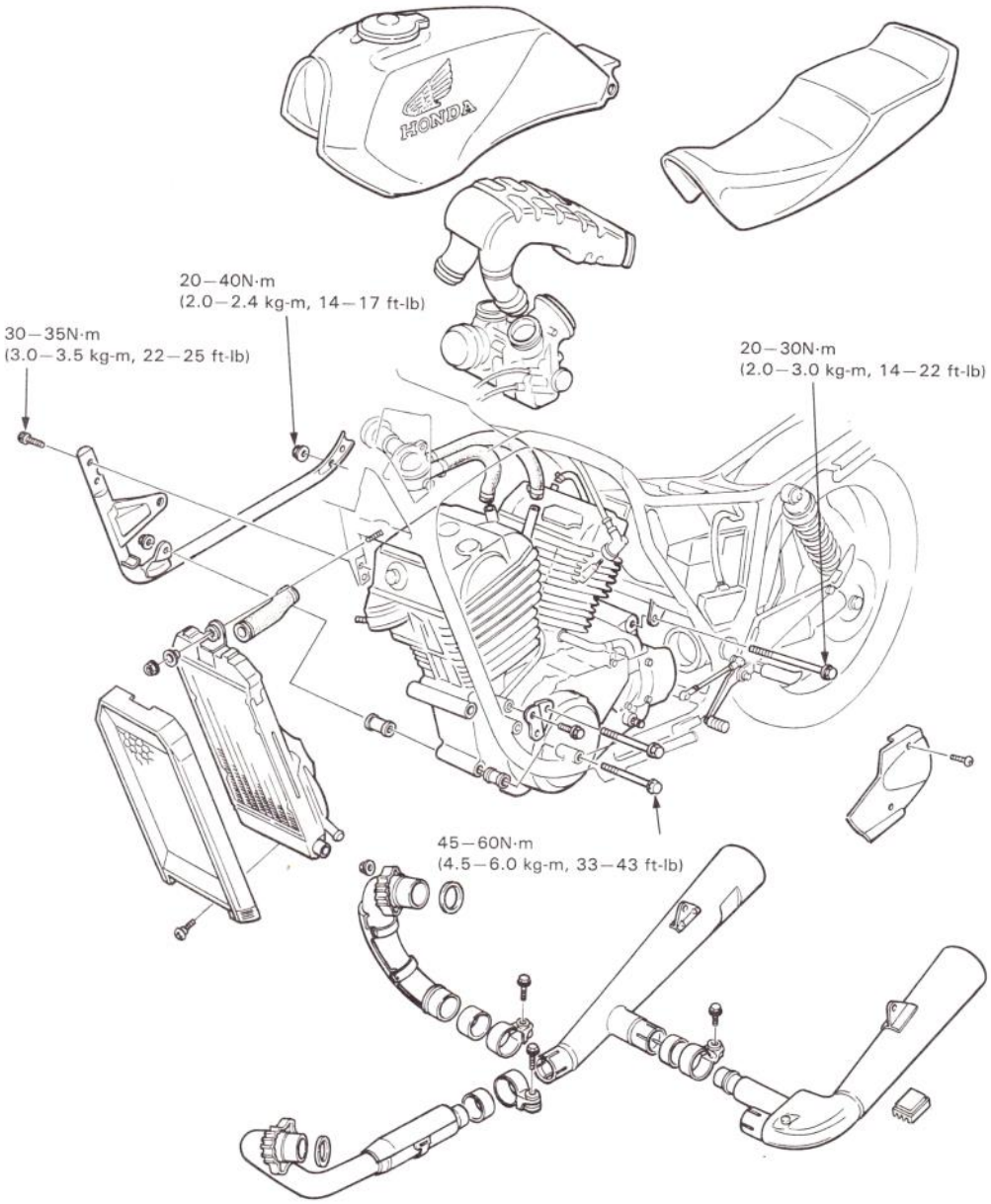
HEADLIGHT AIM

Adjust vertically and horizontally by turning the adjusting screws.



(1) HORIZONTAL ADJUSTING SCREW

(2) VERTICAL ADJUSTING SCREW


HONDA
20—40N·m
(2.0—2.4 kg-m, 14—17 ft-lb)
30—35N·m
(3.0—3.5 kg-m, 22—25 ft-lb)
20—30N·m
(2.0—3.0 kg-m, 14—22 ft-lb)
45—60N·m
(4.5—6.0 kg-m, 33—43 ft-lb)

3. ENGINE REMOVAL/ INSTALLATION

SERVICE INFORMATION	3- 1
ENGINE REMOVAL	3- 2
ENGINE INSTALLATION	3- 3

SERVICE INFORMATION

GENERAL

- A floor jack or other adjustable support is required to support and maneuver the engine.
- The following parts or components can be serviced with the engine installed in the frame:

· Clutch
· Gearshift linkage
· Alternator
· Starter motor
· Carburetors

SPECIFICATIONS

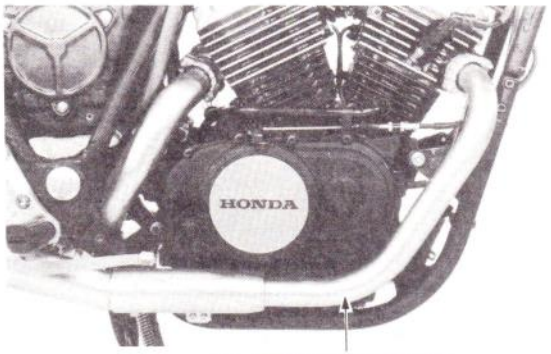
Engine dry weight	64 kg (141 lb)
Oil capacity	3.0 liters (3.2 US qt)

TORQUE VALUES

Engine hanger bolts	
8 mm	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)
10 mm bolt	45–60 N·m (4.5–6.0 kg-m, 33–43 ft-lb)
Sub-frame socket bolt	30–35 N·m (3.0–3.5 kg-m, 22–25 ft-lb)
nut	20–24 N·m (2.0–2.4 kg-m, 14–17 ft-lb)
Exhaust pipe joint nut	8–14 N·m (0.8–1.4 kg-m, 6–10 ft-lb)
Exhaust pipe clamp bolt	20–28 N·m (2.0–2.8 kg-m, 14–20 ft-lb)
Muffler clamp bolt	20–28 N·m (2.0–2.8 kg-m, 14–20 ft-lb)
Footpeg bolt	24–30 N·m (2.4–3.0 kg-m, 17–22 ft-lb)
Rear axle nut	50–80 N·m (5.0–8.0 kg-m, 36–58 ft-lb)
Rear axle pinch bolt	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)
Final gear case nut	20–24 N·m (2.0–2.4 kg-m, 14–17 ft-lb)
Rear brake pedal	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)

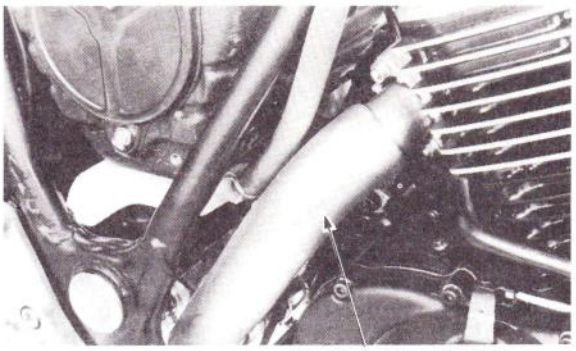
ENGINE REMOVAL

Remove the front exhaust pipe flange nuts and loosen the front exhaust pipe mounting clamp bolt.
Remove the front exhaust pipe.



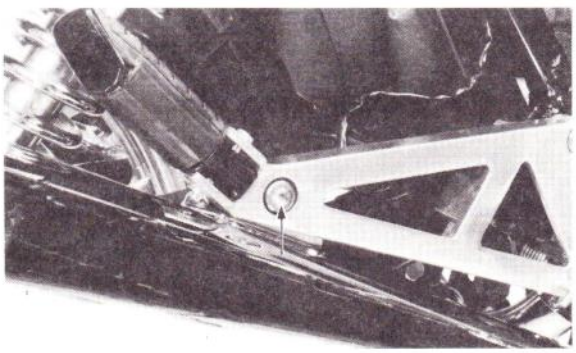
(1) FRONT EXHAUST PIPE

Remove the rear exhaust pipe flange nuts and loosen the right muffler mounting clamp bolt.

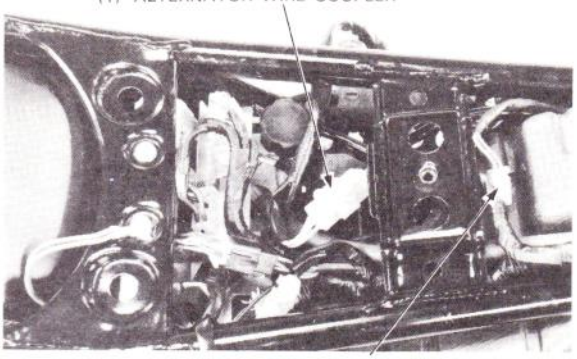


(1) REAR EXHAUST PIPE

Remove the right and left muffler mount bolts.
Remove the right muffler.
Remove the left muffler and rear exhaust pipe assembly.



Disconnect the alternator and neutral switch wire coupler.

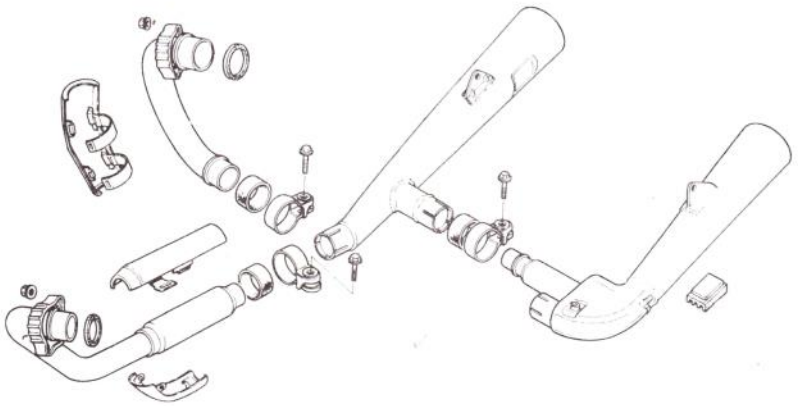


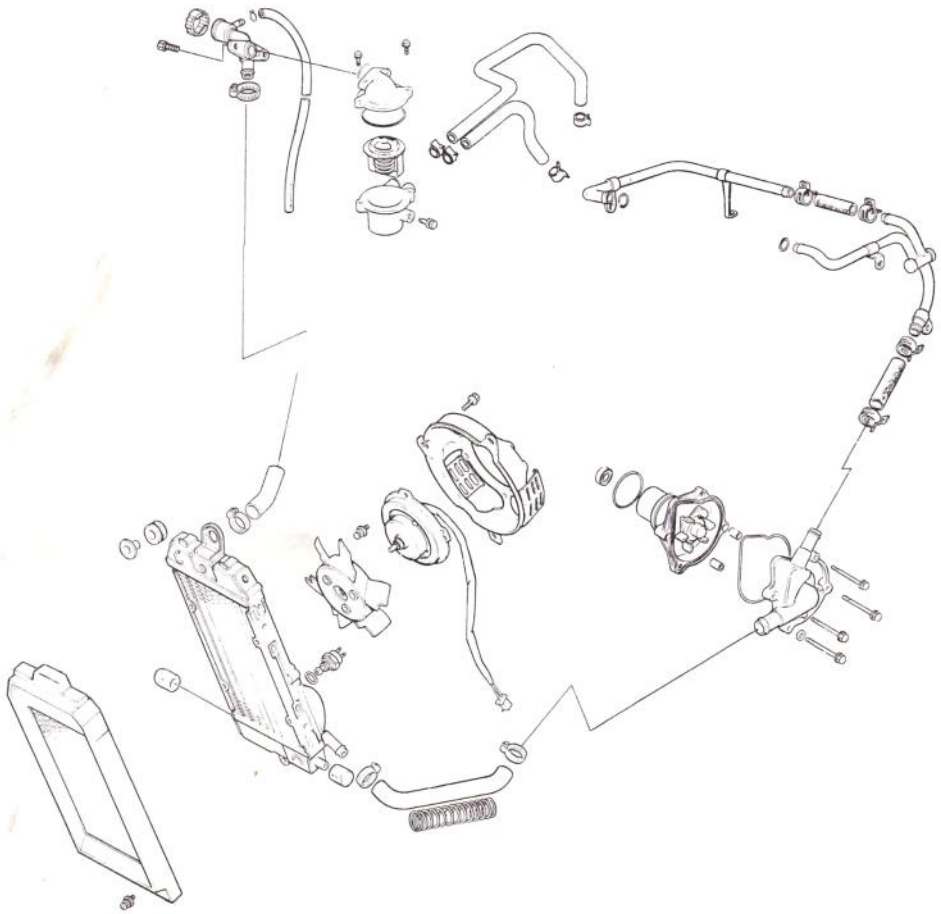
Remove the gear shift arm pinch bolt and gear shift arm.

ENGINE INSTALLATION

Install the engine in the reverse order of removal.

Install the muffler in the reverse order of removal.





HONDA
VT500E

4. COOLING SYSTEM

SERVICE INFORMATION	4- 1
THERMOSTAT	4- 2

SERVICE INFORMATION

GENERAL

WARNING

Do not remove the radiator cap when the engine is hot. The coolant is under pressure and servere scalding could result. The engine must be cool before servicing the cooling system.

- Use only distilled water and ethylene glycol in the cooling system. A50—50 mixture is recommended for maximum corrosion protection. Do not use alcohol-based anti-freeze or an anti-freeze with self sealing properties.
- Add coolant at the reserve tank. Do not remove the radiator cap except to refill or drain the system.
- The radiator, cooling fan and thermostat can be service made with the engine in the frame.
- Avoid spilling coolant on painted surfaces.
- After servicing the system, check for leaks with a cooling system tester.

SPECIFICATIONS

Radiator cap relief pressure	74—103 kPa (0.75—1.05 kg/cm², 10.7—14.9 psi)
Freezing point (Hydrometer test):	55% Distilled water + 45% ethylene glycol: −32°C (−25°F) 50% Distilled water + 50% ethylene glycol: −37°C (−34°F) 45% Distilled water + 55% ethylene glycol: −44.5°C (−48°F)
Coolant capacity: Radiator and engine Reserve tank Total system	 1.55 liters (1.64 US qt, 1.36 Imp qt) 0.45 liters (0.48 US qt, 0.40 Imp qt) 2.0 liters (2.1 US qt, 1.7 Imp qt)
Thermostat	Begins to open: 80° to 84°C (176° to 183°F) Valve lift: Minimum of 8 mm at 95°C (0.315 in at 203°F)
Boiling point (with 50—50 mixture):	Unpressurized: 107.7°C (226°F) Cap on, pressurized: 125.6°C (258°F)

TOOL

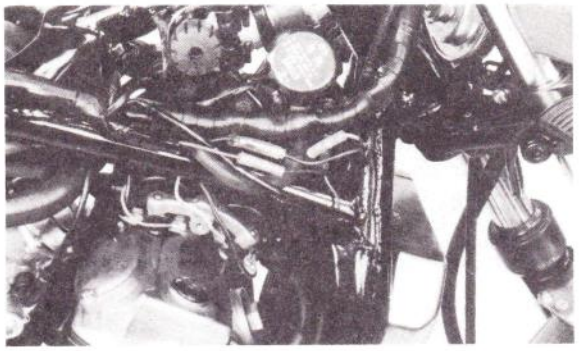
Special

Cooling system tester	Commercially available

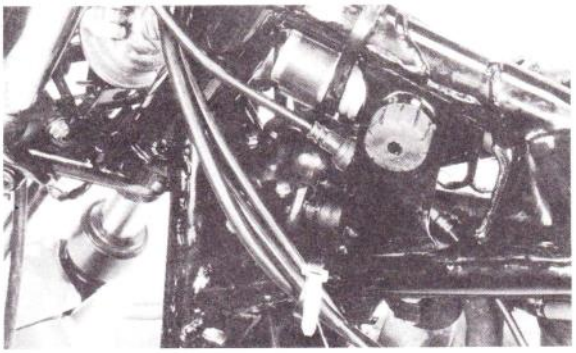
THERMOSTAT

REMOVAL

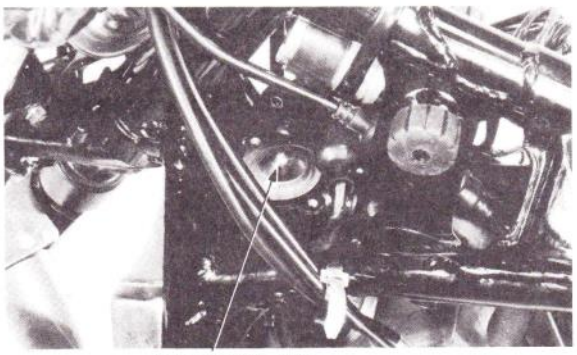
Drain the coolant.
Remove the thermostat housing mounting bolts.



Remove the thermostat cover mounting bolts. and cover.



Remove the thermostat from the housing.

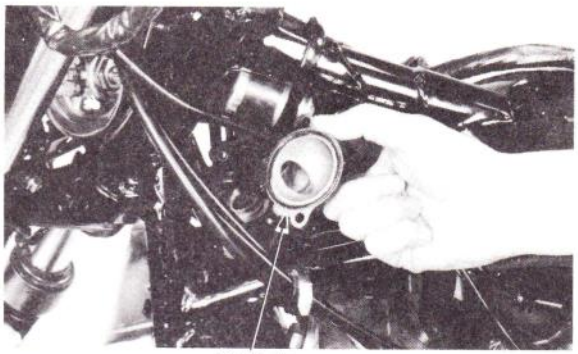


(1) THERMOSTAT

INSTALLATION

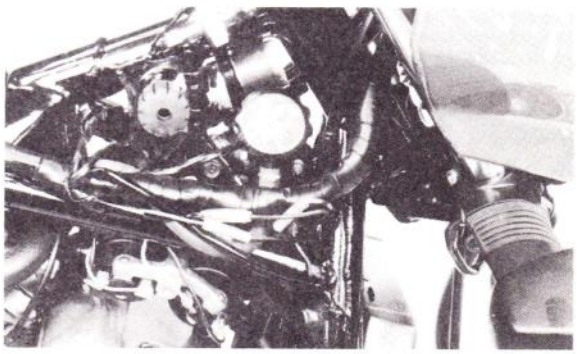
Install the thermostat in the housing.

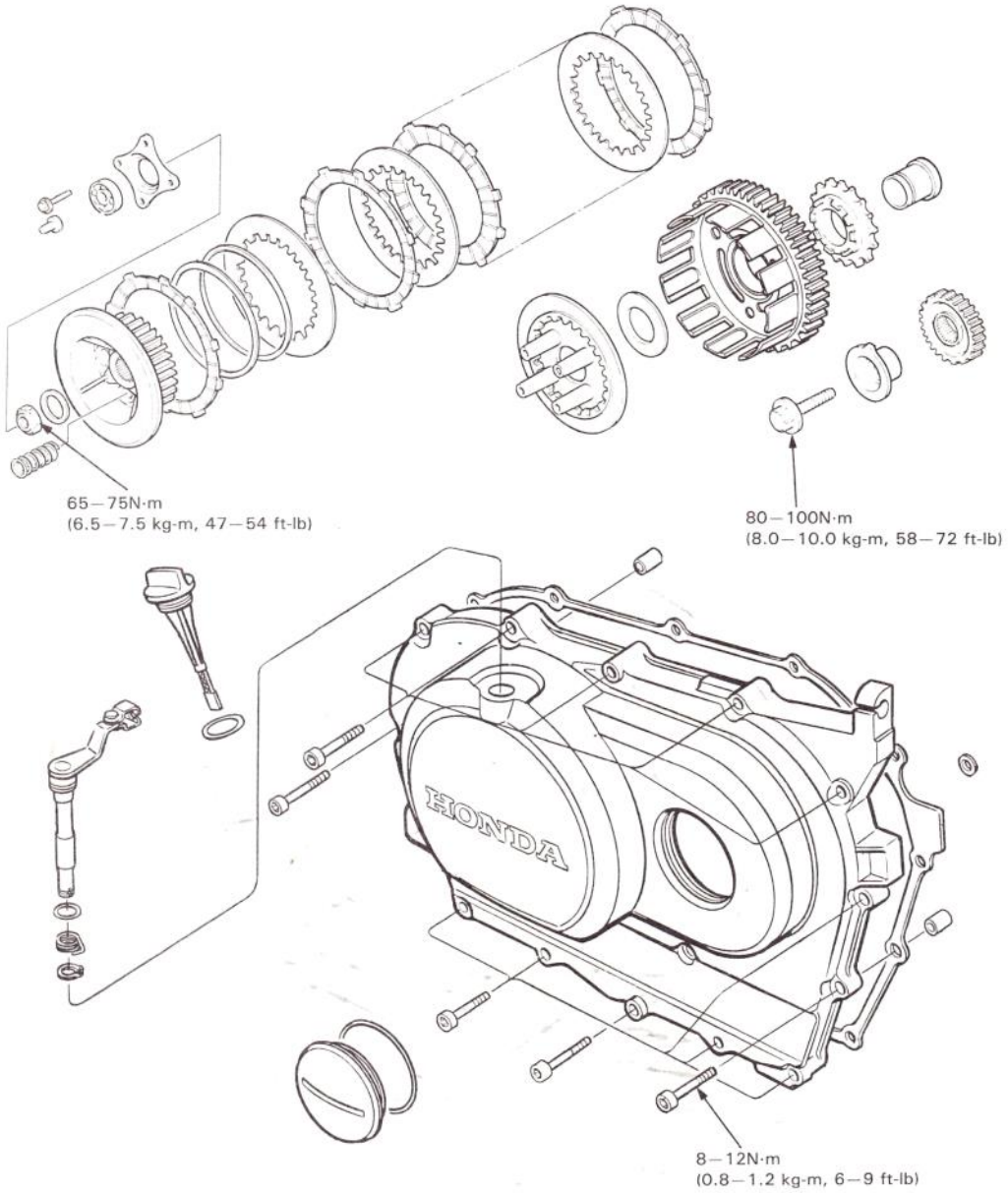
Install a new O-ring onto the cover, place the cover onto the housing and tighten the bolts.



(1) O-ring

Thighten the thermostat housing mounting bolts.




65—75N·m
(6.5—7.5 kg-m, 47—54 ft-lb)
80—100N·m
(8.0—10.0 kg-m, 58—72 ft-lb)
HONDA
8—12N·m
(0.8—1.2 kg-m, 6—9 ft-lb)

HONDA VT500E 5. CLUTCH/GEAR SHIFT

SERVICE INFORMATION	5- 1
RIGHT CRANKCASE COVER REMOVAL	5- 2

SERVICE INFORMATION

GENERAL

- Coat new discs with clean engine oil before reassembly.
- Support the engine with a jack or suitable block when the sub-frame is removed to service the clutch and drive gear.
- Refer to VT500C SHOP MANUAL for troubleshooting and inspection of clutch/gearshift.

SPECIFICATIONS

ITEM			STANDARD	SERVICE LIMIT
Clutch	Spring free length		39 mm (1.53 in)	37.4 mm (1.47 in)
	Spring preload/length		19–21 kg/29.0 mm (41.9–46.316/1.14 in)	————
	Disc thickness	A	2.62–2.78 mm (0.102–0.109 in)	2.30 mm (0.090 in)
		B	2.92–3.08 mm (0.115–0.121 in)	2.60 mm (0.102 in)
	Plate warpage		————	0.3 mm (0.01 in)
	Outer guide	ID	21.991–22.016 mm (0.866–0.867 in)	22.09 mm (0.869 in)
		OD	31.959–31.975 mm (1.258–1.259 in)	31.98 mm (1.259 in)
	Outer ID		32.000–32.025 mm (1.2598–1.2608 in)	32.10 mm (1.263 in)

TORQUE VALUES

Clutch lock nut	65–75 N·m (6.5–7.5 kg-m, 47–54 ft-lb)
Primary gear bolt	80–100 N·m (8.0–10.0 kg-m, 58–72ft-lb)
Right crankcase cover	8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)

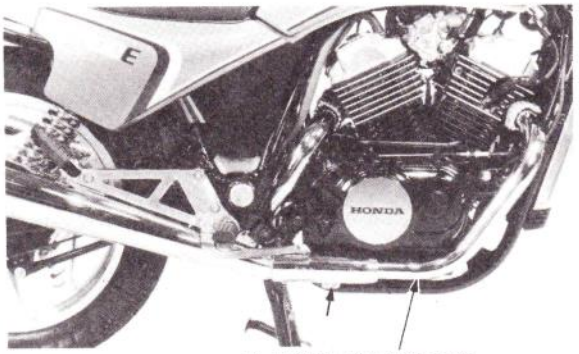
TOOLS

Special

Clutch center holder	07923–KE10000
Gear holder	07923–ME90000

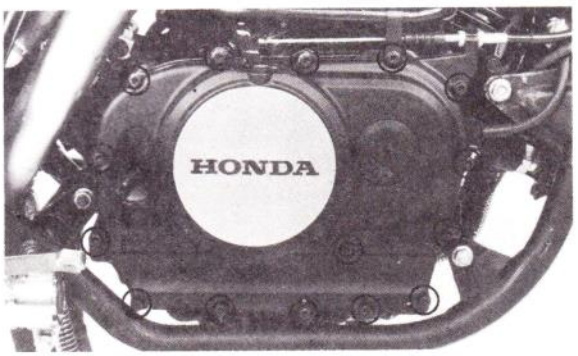
RIGHT CLANCCASE REMOVAL

Drain oil from the engine.
Remove the front exhaust pipe.



(1) FRONT EXHAUST PIPE

Remove the right crankcase cover, gasket and dowel pins.

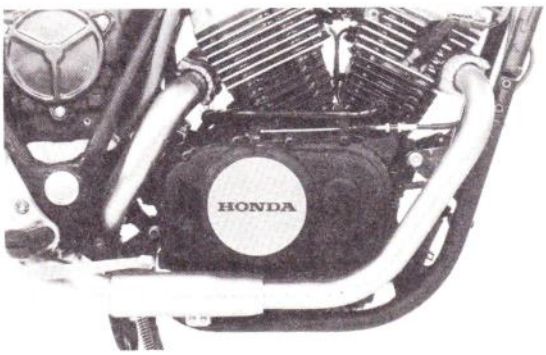


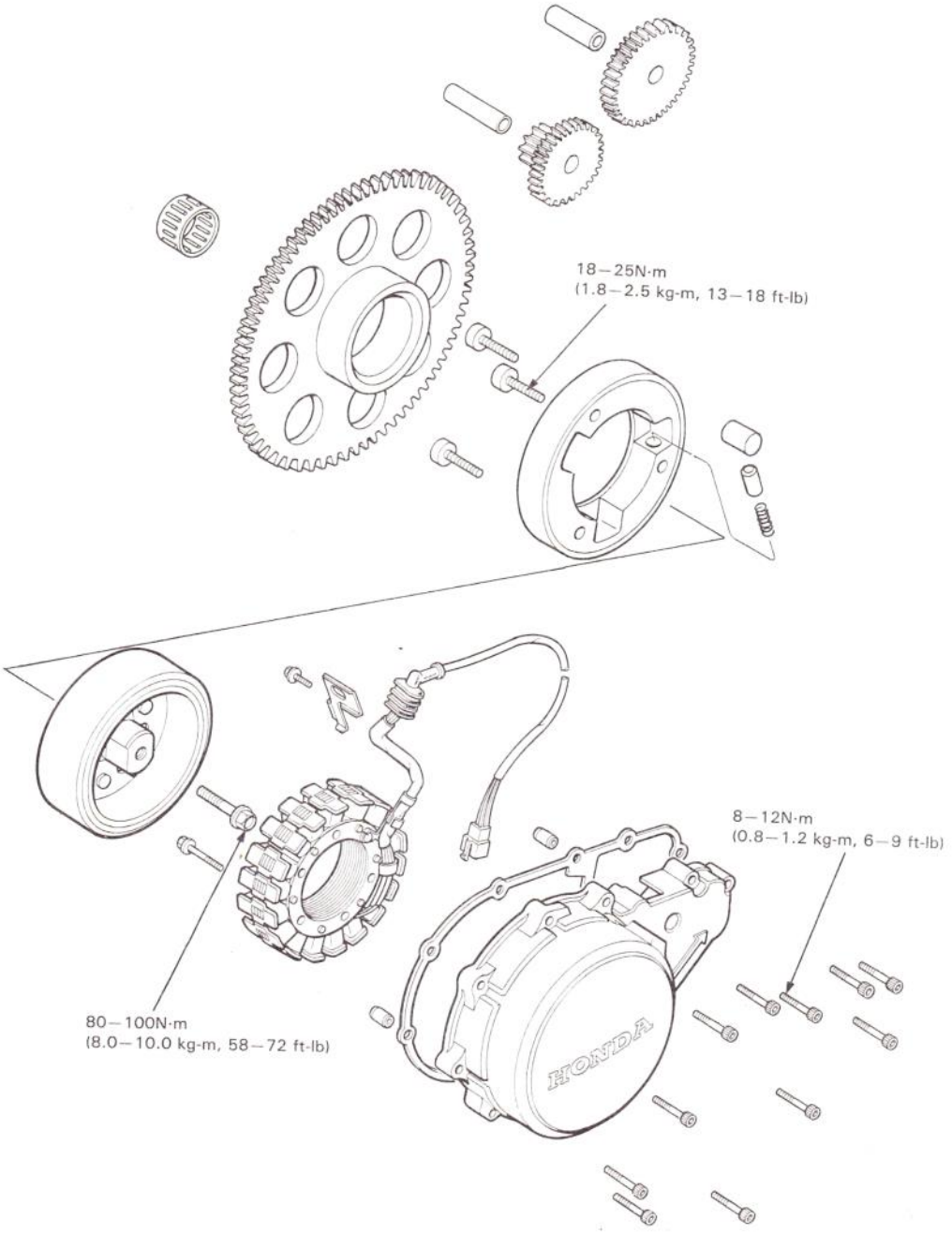
INSTALLATION

Install the dowel pins and a new gascket.
Install the right crankcase cover and tighten the cover bolts.

TORQUE: 8—12N·m
(0.8—1.2 kg-m, 6—9 ft-lb)

Install the exhaust pipe.
Fill the crankcase with oil.




18–25N·m
(1.8–2.5 kg-m, 13–18 ft-lb)
8–12N·m
(0.8–1.2 kg-m, 6–9 ft-lb)
80–100N·m
(8.0–10.0 kg-m, 58–72 ft-lb)
HONDA

6. ALTERNATOR/ STARTER CLUTCH

SERVICE INFORMATION	6- 1
STARTOR REMOVAL	6- 2

SERVICE INFORMATION

GENERAL

- Refer to VT500C SHOP MANUAL for troubleshooting and inspection of alternator.

SPECIFICATIONS

	STANDARD	SERVICE LIMIT
Starter driven gear O.D.	54.17—54.20 mm (2.132—2.134 in)	54.06 mm (2.128 in)
Starter clutch outer I.D.	70.874—70.800 mm (2.7889—2.7874 in)	70.96 mm (2.794 in)

TORQUE VALUES

Alternator rotor/Flywheel bolt	80—100 N·m (8.0—10.0 kg-m, 58—72 ft-lb)
Starter clutch Torx bolts	18—25 N·m (1.8—2.5 kg-m, 13—18 ft-lb)
Alternator cover bolts	8—12 N·m (0.8—1.2 kg-m, 6—9 ft-lb)

TOOLS

Special

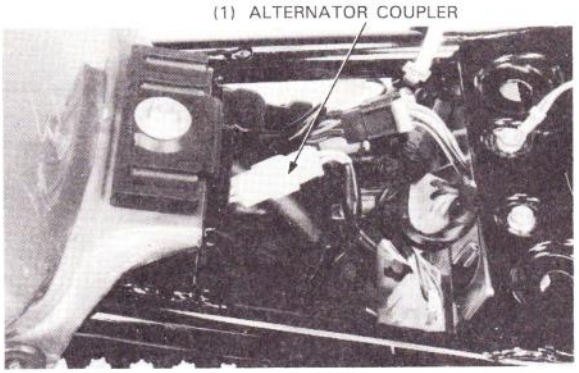
Flywheel holder	07925—ME90000

Common

Rotor puller	07733—0020001 or 07933—3290001

STARTOR REMOVAL

Remove the seat
Disconnect the alternator coupler.



Remove the gearshift arm pintch bolt and gearshift arm.

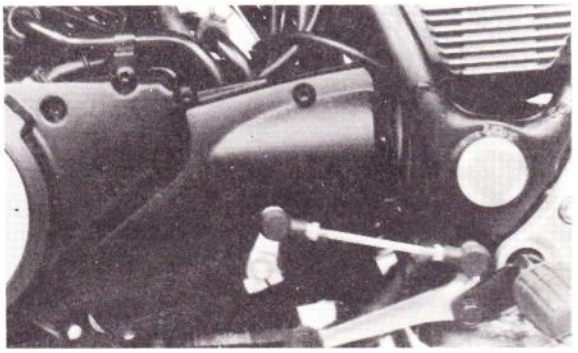
Remove the rear cover.

Remove the alternator cover bolt and cover.

Remove the gascket and dowel pins.

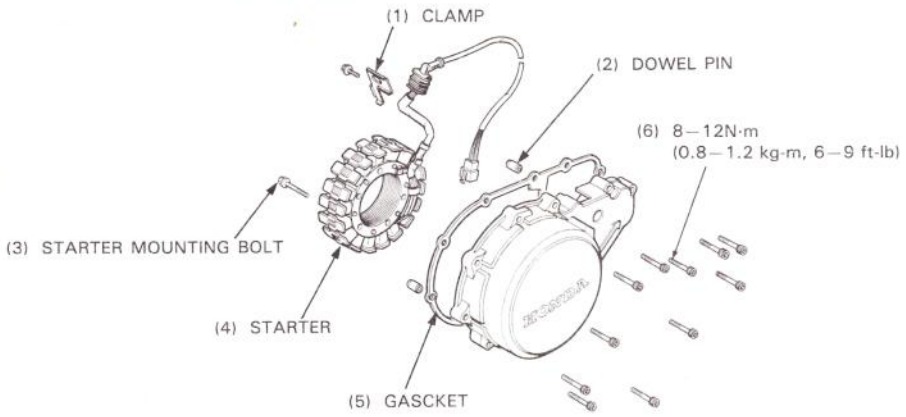
Remove the bolt attaching the alternator wire clamp and clamp.

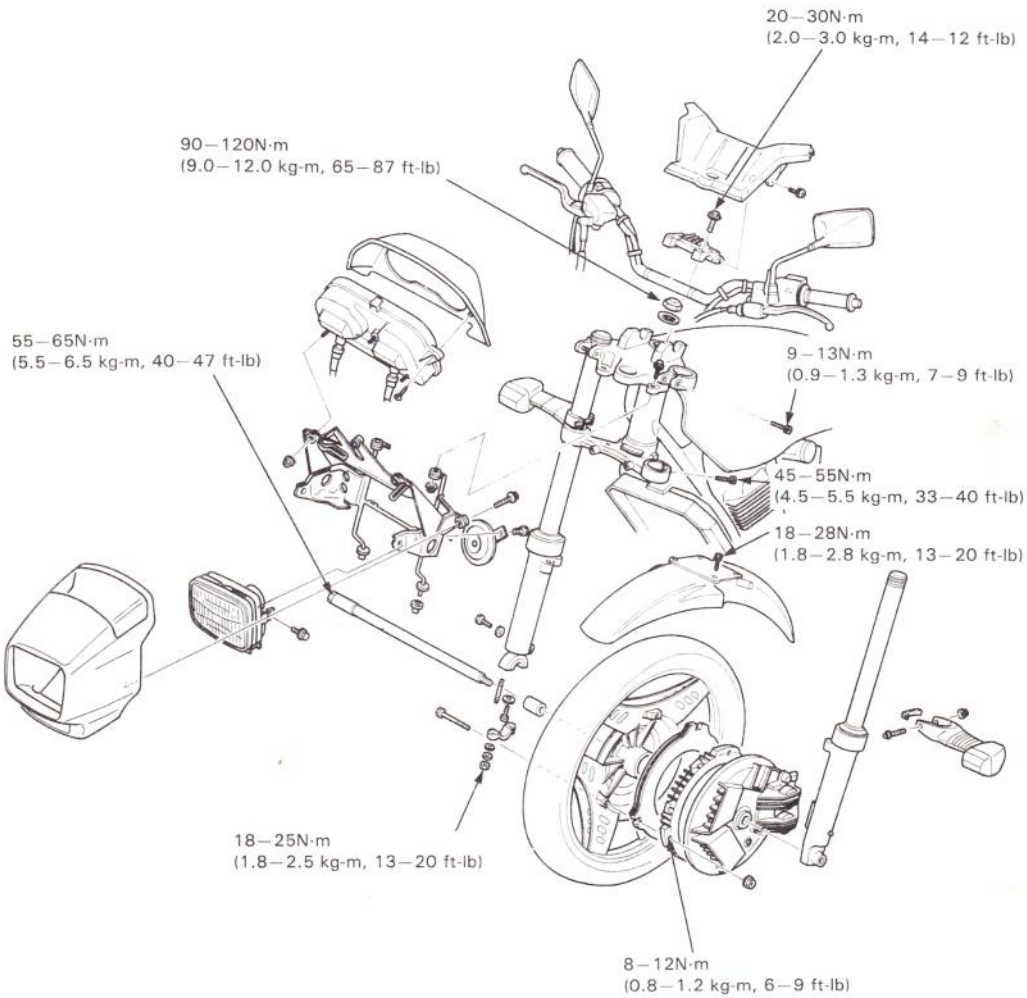
Remove the stator mounting bolts and stator from the alternator cover.



INSTALLATION

Install the startor in the reverse order of removal.




20—30N·m
(2.0—3.0 kg-m, 14—12 ft-lb)
90—120N·m
(9.0—12.0 kg-m, 65—87 ft-lb)
55—65N·m
(5.5—6.5 kg-m, 40—47 ft-lb)
9—13N·m
(0.9—1.3 kg-m, 7—9 ft-lb)
45—55N·m
(4.5—5.5 kg-m, 33—40 ft-lb)
18—28N·m
(1.8—2.8 kg-m, 13—20 ft-lb)
18—25N·m
(1.8—2.5 kg-m, 13—20 ft-lb)
8—12N·m
(0.8—1.2 kg-m, 6—9 ft-lb)

7. FRONT WHEEL/ SUSPENSION

SERVICE INFORMATION	7- 1	FUSE HOLDER	7-13
HEADLIGHT	7- 2	FRONT WHEEL	7-14
TURN SIGNAL	7- 5	FRONT FORKS	7-17
INSTRUMENTS	7- 5		
HANDLEBAR	7- 8		
IGNITION SWITCH	7-12		

SERVICE INFORMATION

GENERAL

- A jack or other support is required to support the motorcycle.
- Never ride on the rim.

SPECIFICATIONS

		STANDARD	SERVICE LIMIT
Axle shaft runout		———	0.2 mm (0.01 in)
Front wheel rim runout	Radial	0.3 mm (0.01 in) max.	2.0 mm (0.08 in)
	Axial	0.3 mm (0.01 in) max.	2.0 mm (0.08 in)
Wheel bearing play		———	0.03 mm (0.001 in)
Fork spring free length		445.4 mm (17.96 in)	436.4 mm (17.6 in)
Fork tube runout		———	0.2 mm (0.01 in)
Front fork fluid capacity		360 ± 2.5 cc (22.04 ± 0.15 cu in)	———
Front fork air pressure		0–40 kPa (0–0.4kg–cm², 0–6 psi)	———

TORQUE VALUES

Handlebar upper holder	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)
Front axle	55–65 N·m (5.5–6.5 kg-m, 40–47 ft-lb)
Axle holder nut	18–25 N·m (1.8–2.5 kg-m, 13–18 ft-lb)
Front fork socket bolt	15–25 N·m (1.5–2.5 kg-m, 11–18 ft-lb)
Fork tube cap	15–30 N·m (1.5–3.0 kg-m, 11–22 ft-lb)
Steering stem nut	90–120 N·m (9.0–12.0 kg-m, 65–87 ft-lb)
Disc cover	8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)
Front fork top pinch bolt	9–13 N·m (0.9–1.3 kg-m, 7–9 ft-lb)
front fork bottom pinch bolt	45–55 N·m (4.5–5.5 kg-m, 33–40 ft-lb)

TOOLS

Special

Hollow set wrench 6 mm	07917–3230000
Snap ring pliers	07914–3230001
Fork seal driver	07947–3710101
Race remover/installer	07946–3710701
Steering stem driver	07946–MB00000

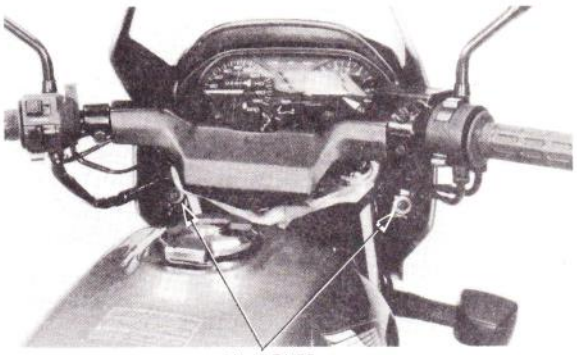
Common

Handle outer A	07749–0010000
Attachment, 42 X 47 mm	07746–0010300
Pilot, 15 mm	07746–0040300
Lock nut wrench, 30 X 32 mm	07716–0020400
Extension bar	07716–0020500
Wheel bearing remover expander	07746–0050100
Wheel bearing remover collet, 15 mm	07746–0050400
Pin spanner	07702–0020000

HEADLIGHT

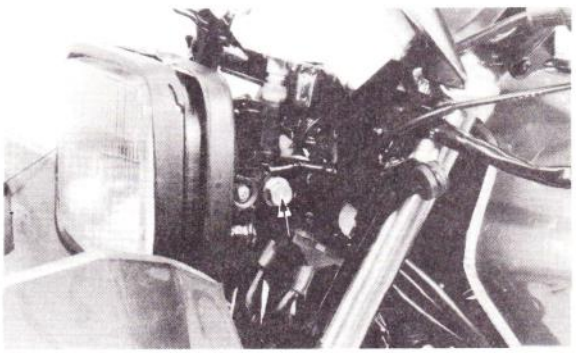
BULB REPLACEMENT

Pivot the fairing down by removing the mount bolts.



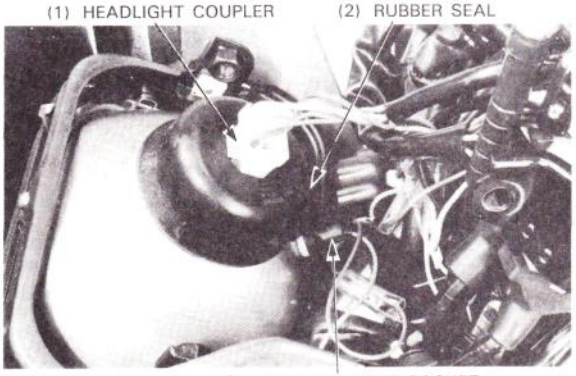
(1) BOLTS

Remove the headlight case by removing the mount bolts.



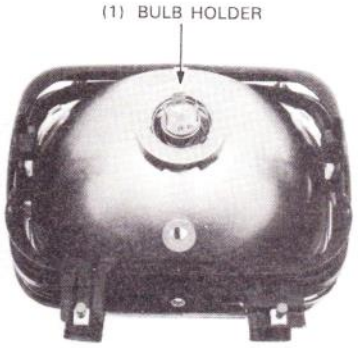
Remove the headlight coupler and rubber seal. Pull out the position light socket and replace the bulb.

(1) HEADLIGHT COUPLER (2) RUBBER SEAL



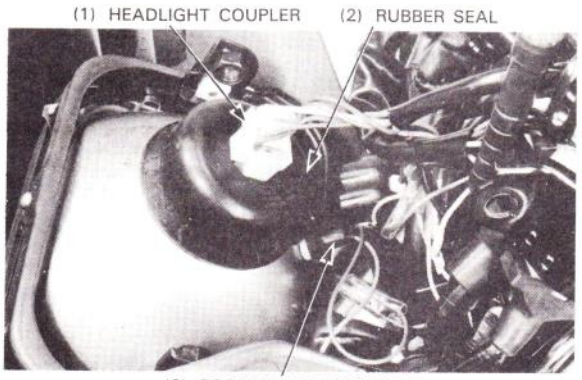
(3) POSITION LIGHT SOCKET

Turn the bulb holder and replace the bulb.



Install the robber seal on the headlight with the arrow mark toward the top.

Install the headlight case in the revers order of removal.

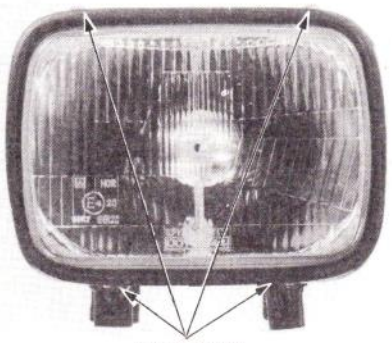


HEADLIGHT ASSEMBLY/DISASSEMBLY.

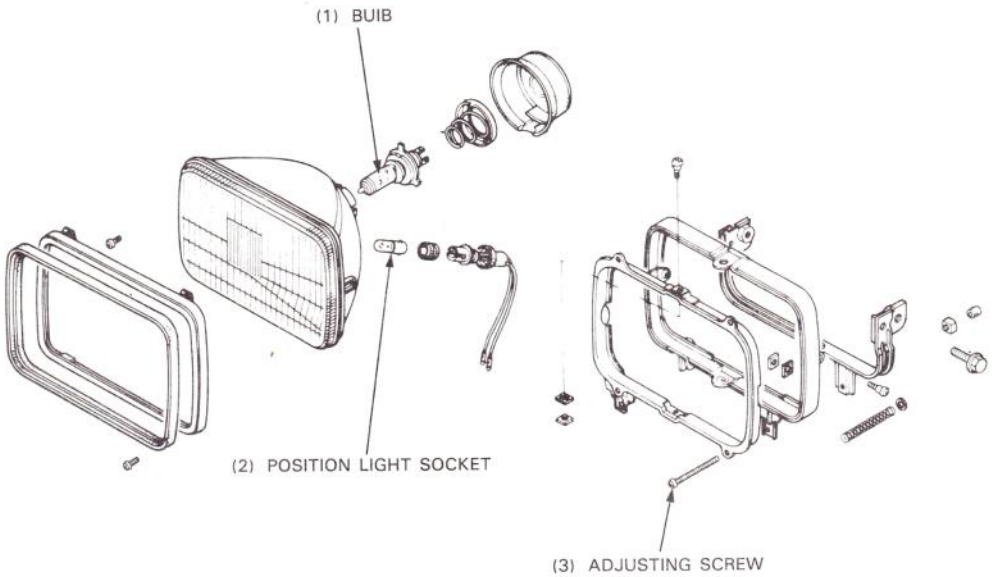
Remove the headlight case (page7-2).

Remove the headlight from the case by removing the four screws.

Assembly is reverse order of disassembly.



(1) SCREWS

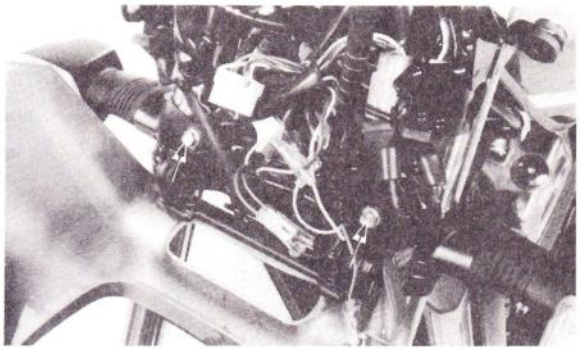


TURN SIGNAL

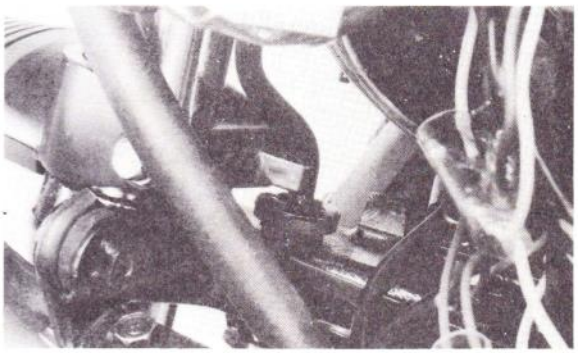
REMOVAL/INSTALLATION

Pivot the fairing down (page 7-2).

Disconnect the turn signal connectors and remove the turn signal assembly by removing the mount bolt.



Install the turn signal assembly as shown and connect the turn signal connectors.



INSTRUMENT

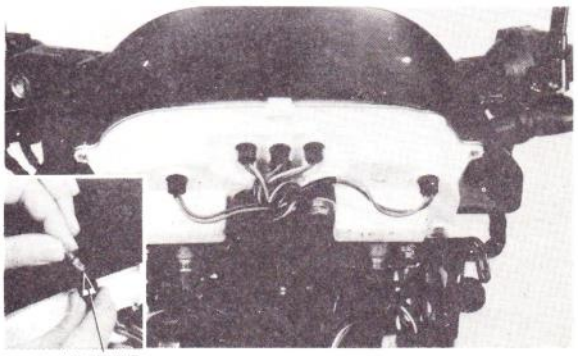
BULB REPLACE MENT

Pivot the fairing down (page 7-2).

Pull out the bulb socket and replace the bulb.

NOTE

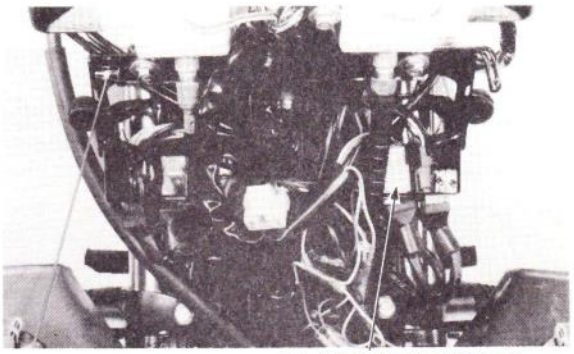
For remainning bulbs, replace them after removing the instruments.



(1) BULB

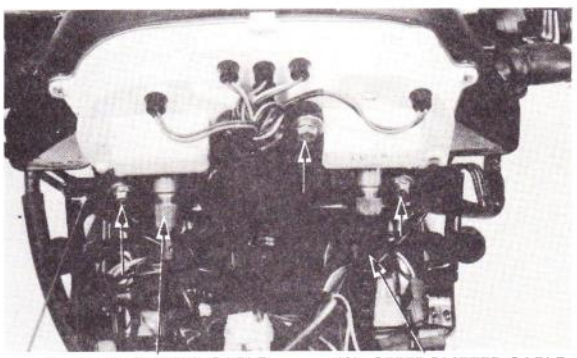
REMOVAL

Pivot the fairing down (page 7-2). Disconnect the instruments coupler.



(1) INSTRUMENT COUPLER

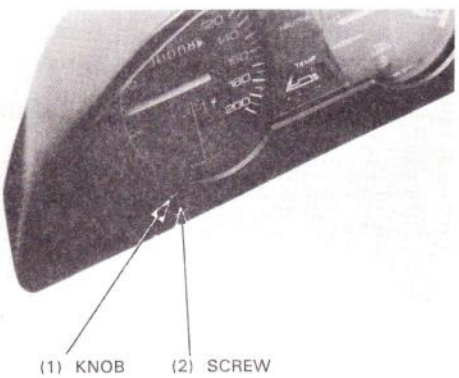
Remove the speedometer and tachometer cables. Remove the three mounting nuts and instruments.



(1) TACHOMETER CABLE (2) SPEEDOMETER CABLE

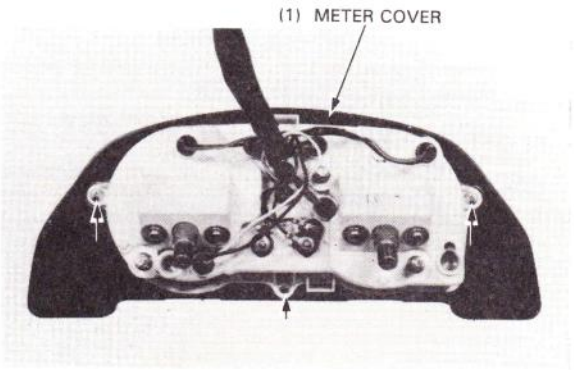
DISASSEMBLY

Remove the screw and the knob.

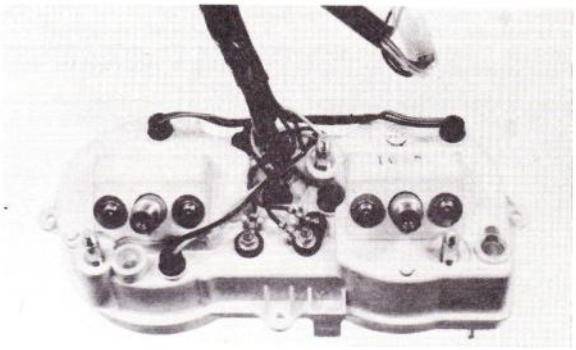


(1) KNOB (2) SCREW

Remove the three mounting screws and remove the meter cover.



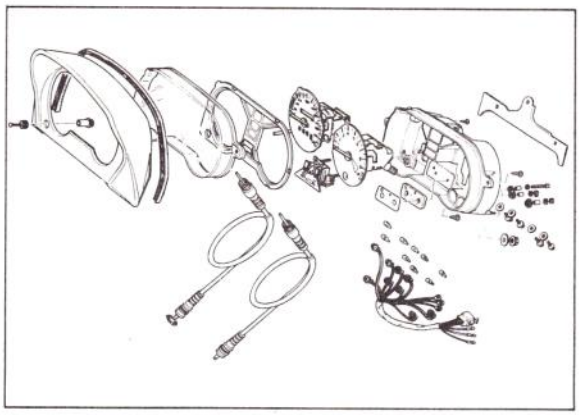
Remove the meter setting screws and meter.



ASSEMBLY/INSTALLATION

Lubricate the speedometer and tachometer cables before reconnecting.

Reassemble and install in the reverse order of removal and disassembly.



HANDLEBAR

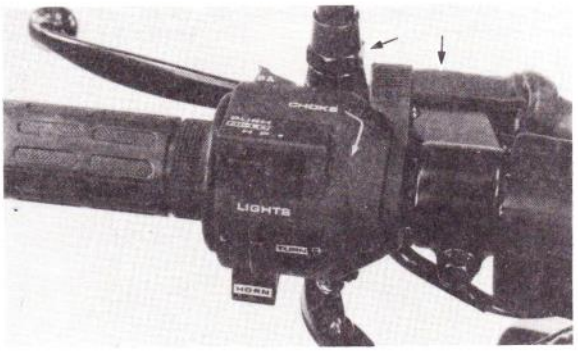
REMOVAL

Remove the two screws and handlebar cover.

(1) HANDLEBAR COVER

Remove the dust cover and clutch cable from the clutch lever.

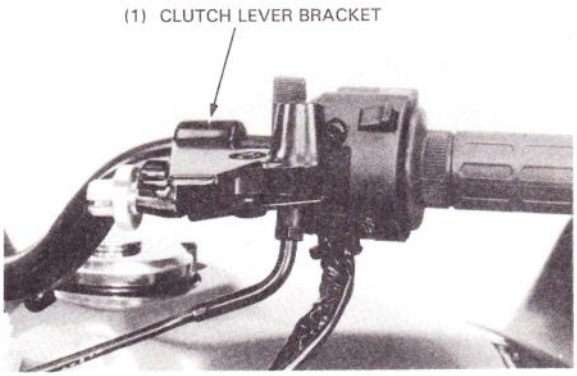
Remove the left rear view mirror.



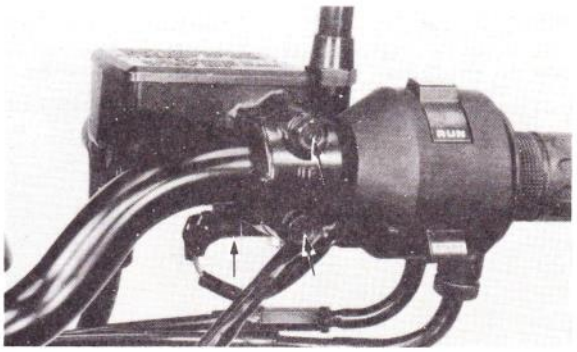
Loosen the clutch lever bracket mounting bolt and slide it leftside.

Remove the two screws and left switch housing. Remove the left handle grip and clutch lever bracket.

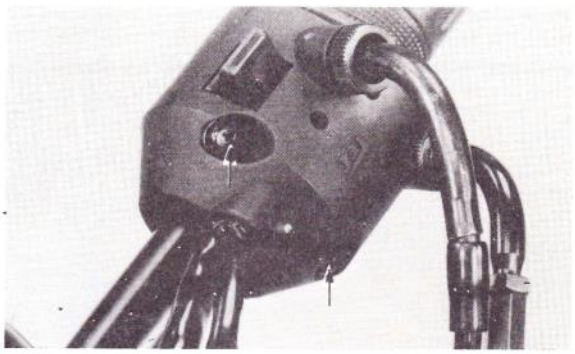
(1) CLUTCH LEVER BRACKET



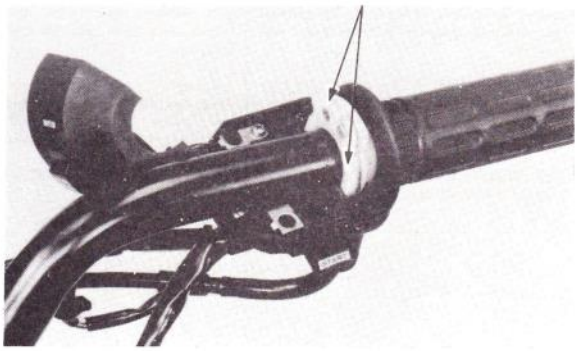
Disconnect the brake light switch wires and remove the brake master cylinder.



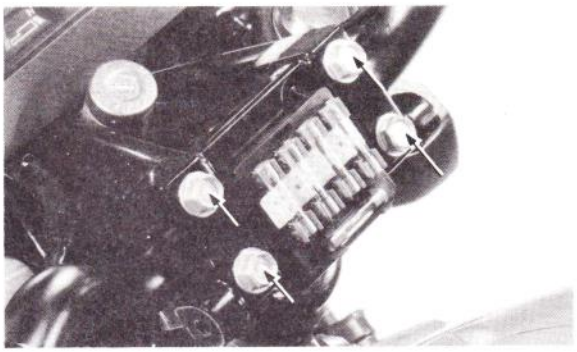
Remove the two screws and enginestop/starter switch housing.



Remove the throttle cables from the throttle grip. Remove the throttle grip and the switch housing.



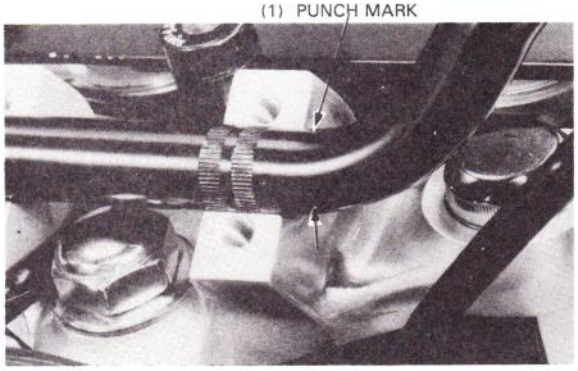
Remove the four bolts and holder.
Remove the handlebar.



INSTALLATION

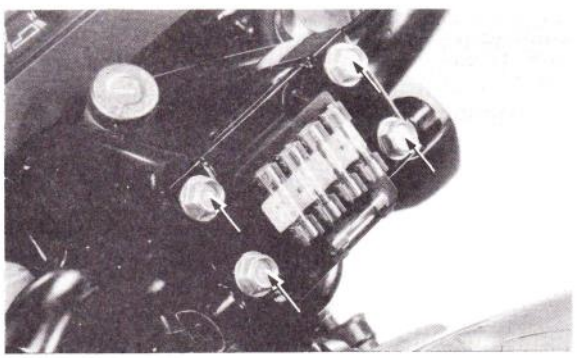
Place the handlebar on to the lower holder aligning the punch mark with the outside face of the lower holder.

(1) PUNCH MARK



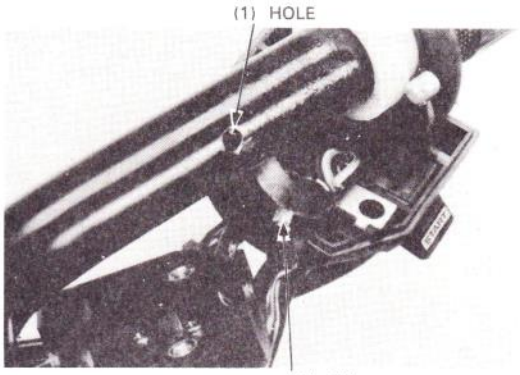
Install the upper holder and tighten the upper bolts first, then tighten the rear bolts.

TORQUE: 20—30N·m
(2.0—3.0 kg-m, 14—22 ft-lb)

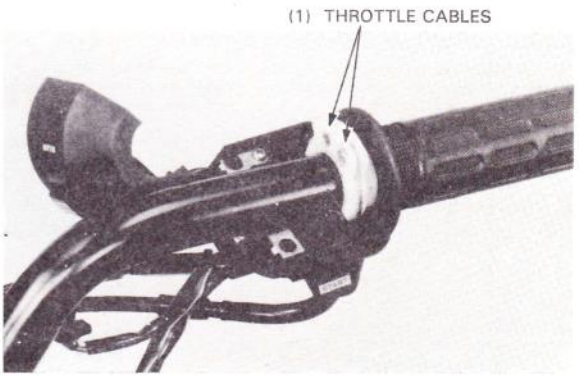


Apply grease to the throttle grip sliding surface and slide the trottle grip over the handlebar.

Install the right handlebar switch aligning the switch pin with the hole in the handlebar.

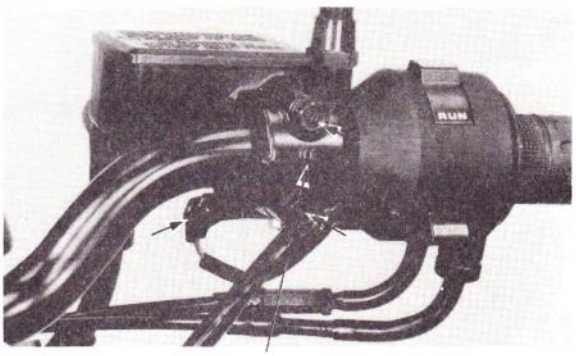


Install the throttle cable on the throttle grip.
Install the right switch housing with the two screws. Tighten the forward screw first, then tighten the rear screw.



Install the front brake master cylinder with the "UP" mark on the holder facing up.
Align the end of the holder with the handlebar punch mark. Tighten the upper bolt first, then the lower bolt.

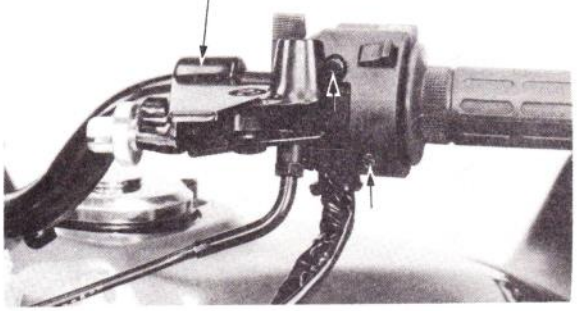
Install the right handlebar switch and connect the brake light switch.



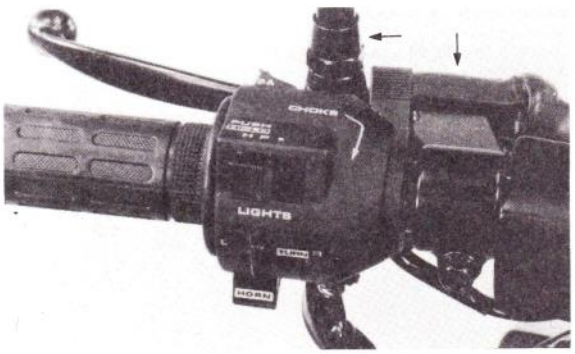
Slide the clutch lever bracket over the handlebar. Install the left switch housing aligning the switch pin with the hole in the handlebar.
Tighten the upper screw first, then lower screw.

Install the handle grip.

(1) CLUTCH LEVER BRACKET



Install the clutch lever, clutch cable and left rear view mirror.



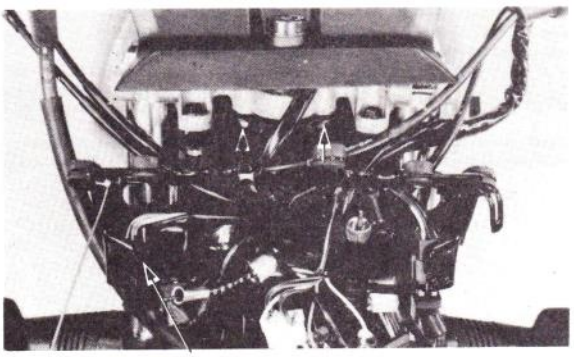
IGNITION SWITCH

REMOVAL/INSTALLATION

Pivot the fairing down (page 7-2).

Remove the instruments (page 7-6).

Disconnect the ignition switch coupler and remove the ignition switch by removing the two bolts.

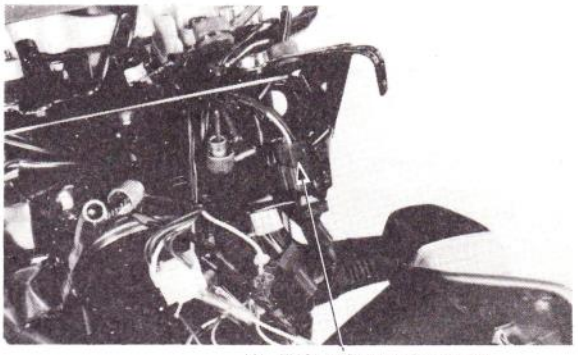


(1) IGNITION SWITCH COUPLER

FUSE HOLDER

REMOVAL/INSTALLATION

Pivot the fairing down (page 7-2).
Remove the instruments (page 7-6).
Romove the fuse holder coupler.

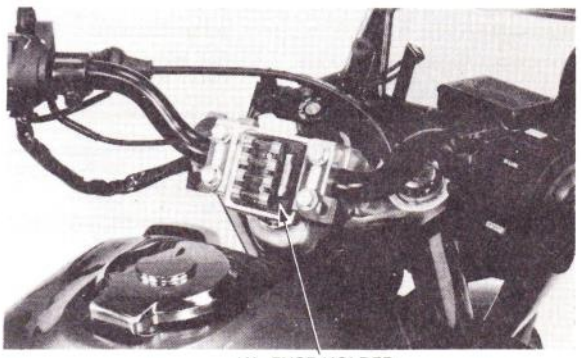


(1) FUSE HOLDER COUPLER

Remove the handlebar cover.

Remove the fuse holder.

Installation is reverse of orde.



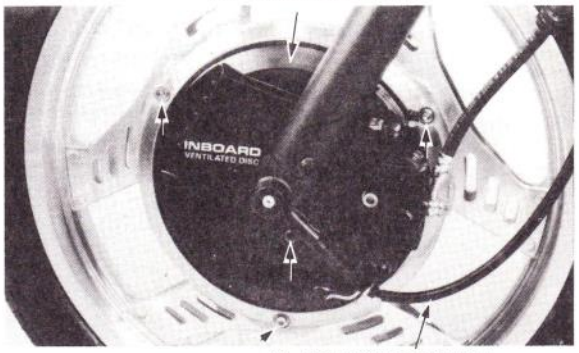
(1) FUSE HOLDER

FRONT WHEEL

REMOVAL

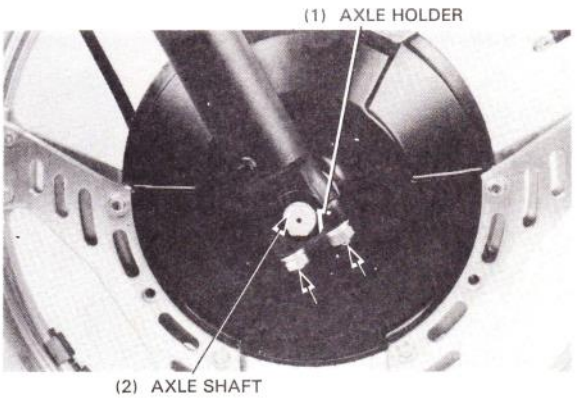
Disconnect the speedometer cable by removing the speedometer cable set screw.

Remove the front disc cover.

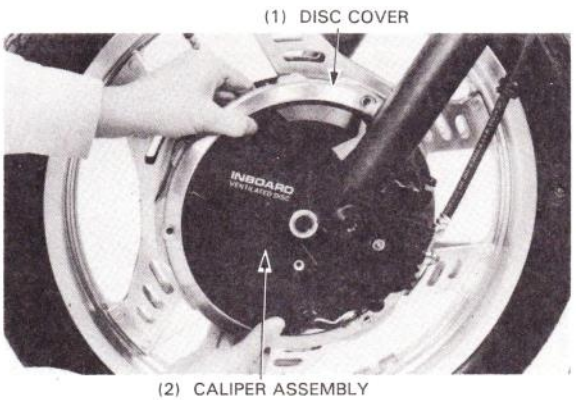


Raise the front wheel off the ground by placing a support block under the engine.

Loosen the axle holder nuts.
Remove the axle.



Remove the disc cover, caliper assembly and brake disc together.

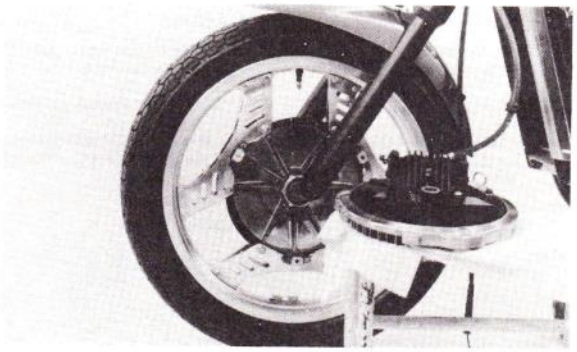


Put the caliper assembly on a block or hang the caliper assembly on a brake hose clamp using such as wire.

NOTE

Do not support the caliper assembly with the brake hose.

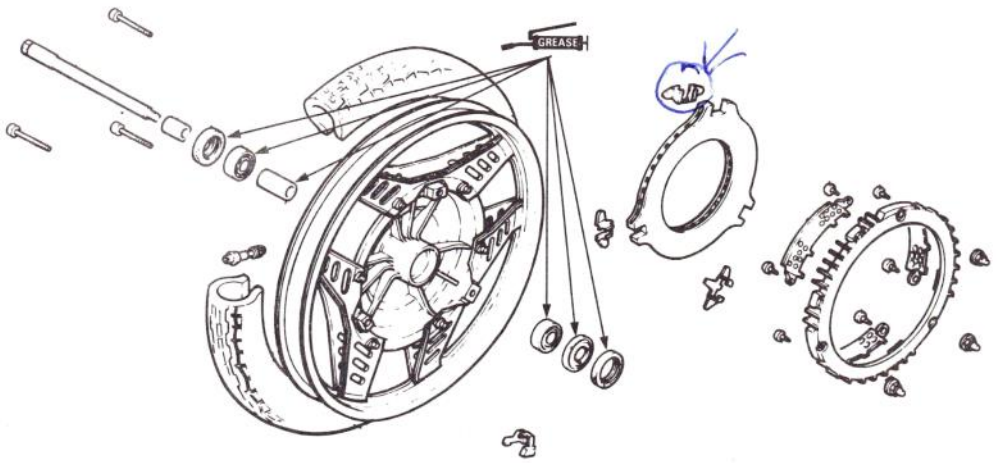
Remove the front wheel.



ASSEMBLY

WARNING

Do not get grease on the brake disc or stopping power will be reduced.



NOTE

Drive in the left bearing first and press the distance collar into place.
Drive in the right bearing squarely.

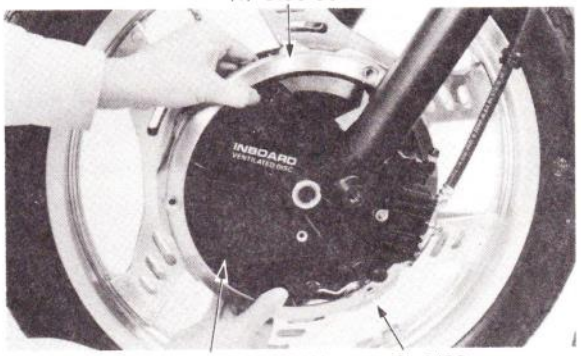
INSTALLATION

Install the brake disc, caliper assembly and disc cover.

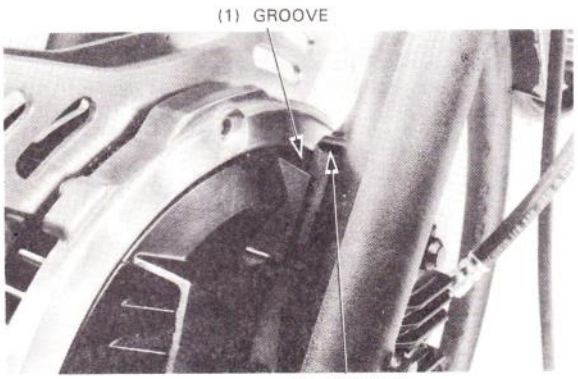
NOTE

Align the grooves of the disc with the disc plate springs.

Align the speedometer gear box on the caliper assembly with the gear box retainer on the front wheel.



Align the groove on the brake caliper assembly with the stopper on the left front fork.



Install the axle holder loosely with arrow mark on it forward.

Tighten the axle shaft.

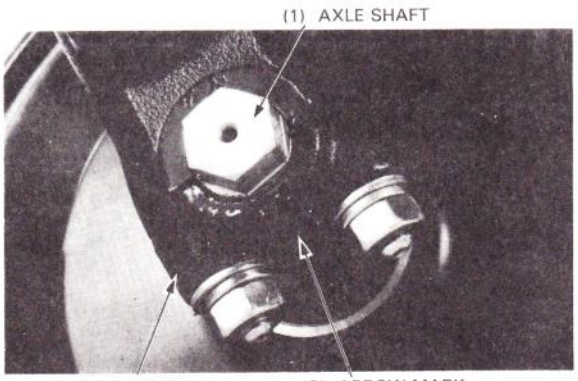
TORQUE: 55—65N·m
(5.5—6.5 kg-m, 40—47 ft-lb)

Tighten the axle holder nuts.

TORQUE: 18—25N·m
(1.8—2.8 kg-m, 13—20 ft-lb)

NOTE

Tighten the forward nut first, then backward nut.



Install the disc cover.

TORQUE: 8–12N·m
(0.8–1.2 kg-m, 6–9 ft-lb)

Install the speedometer cable and set screw.

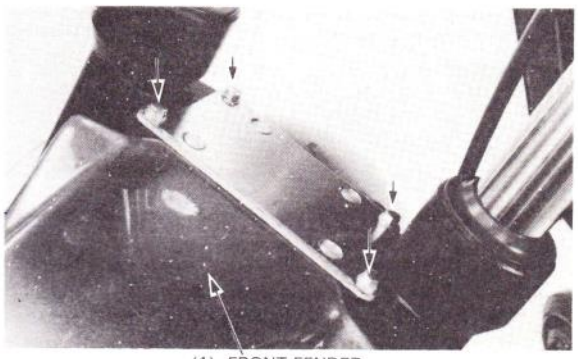
(1) DISC COVER

(2) SPEEDOMETER CABLE

FRONT FORK

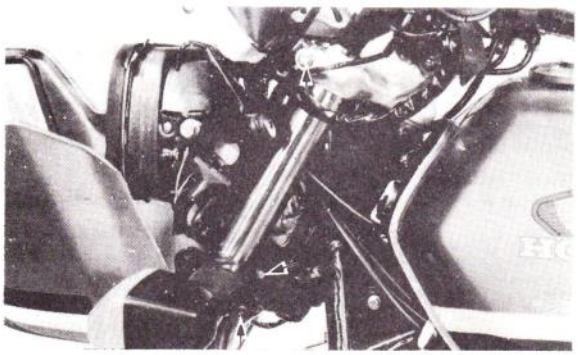
REMOVAL

Remove the front wheel.
Remove the front fender.

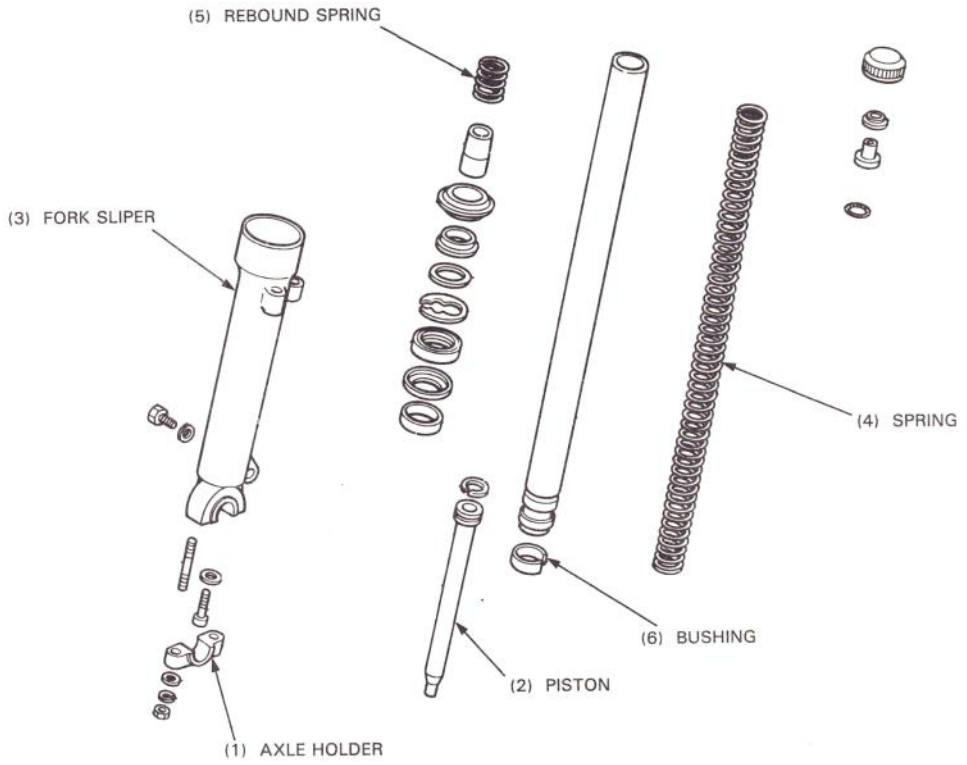


(1) FRONT FENDER

Pivot the fairing down.
Remove the turn signal assembly.
Loosen the fork upper and lower pinch bolts.
Remove the fork tube.

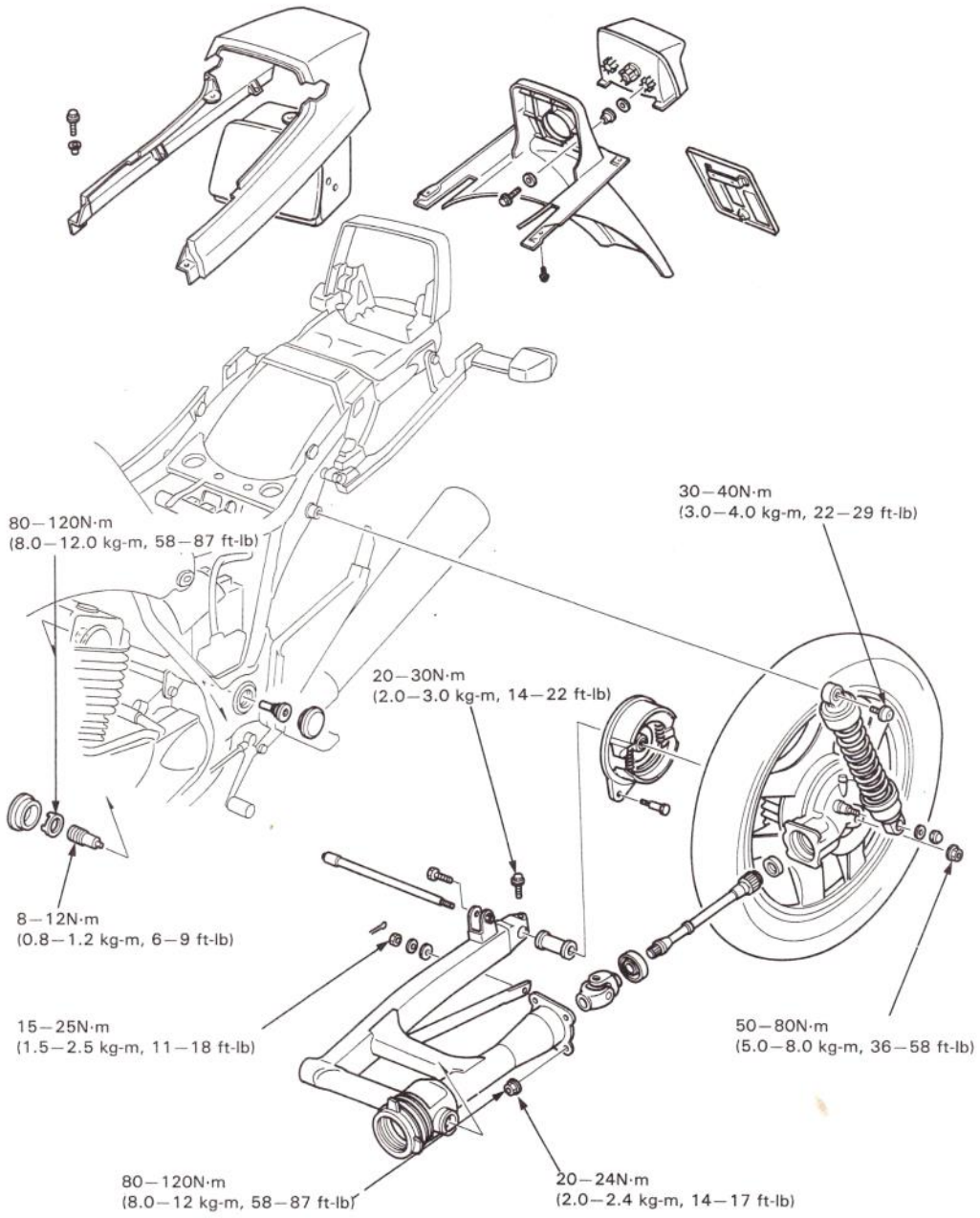


DISASSEMBLY/ASSEMBLY



Refer to VT500 SHOP MANUAL for disassembly inspection and assembly.

Befor assembly, wash all parts with a high flash point or non-flammable solvent and wipe them off completely.


80—120N·m
(8.0—12.0 kg-m, 58—87 ft-lb)
30—40N·m
(3.0—4.0 kg-m, 22—29 ft-lb)
20—30N·m
(2.0—3.0 kg-m, 14—22 ft-lb)
8—12N·m
(0.8—1.2 kg-m, 6—9 ft-lb)
15—25N·m
(1.5—2.5 kg-m, 11—18 ft-lb)
50—80N·m
(5.0—8.0 kg-m, 36—58 ft-lb)
80—120N·m
(8.0—12 kg-m, 58—87 ft-lb)
20—24N·m
(2.0—2.4 kg-m, 14—17 ft-lb)

8. REAR WHEEL/ SUSPENSION

SERVICE INFORMATION	8- 1
REAR WHEEL	8- 2

SERVICE INFORMATION

GENERAL

- Do not remove the rivets, nuts and pins from the rim, spoke plates and hub, since they cannot be disassembled.
- Do not ride on the rim or try to bend the wheel.
- Handle with care since the rim is made of aluminum alloy.
- Refer to VT500C SHOP MANUAL for removal and installation of rear wheel.

SPECIFICATIONS

		STANDARD	SERVICE LIMIT
Axle runout		———	0.2 mm (0.01 in)
Rear wheel rim runout	Radial	———	2.0 mm (0.08 in)
	Axial	———	2.0 mm (0.08 in)
Wheel bearing play		———	0.03 mm (0.001 in)
Shock absorber spring free length		261.8 (10.31)	256.8 mm (10.11)
Brake drum I.D.		140.0—140.3 mm (5.51—5.52 in)	141 mm (5.55 in)
Rear brake lining thickness		4.5—4.6 mm (0.177—0.181 in)	2.0 mm (0.08 in)

TORQUE VALUES

Rear axle nut	50—80 N·m (5.0—8.0 kg-m, 36—58 ft-lb)
Brake torque link bolt	15—25 N·m (1.5—2.5 kg-m, 11—18 ft-lb)
Axle pinch bolt	20—30 N·m (2.0—3.0 kg-m, 14—22 ft-lb)
Brake arm	24—30 N·m (2.4—3.0 kg-m, 17—22 ft-lb)
Shock absorber mount bolt	30—40 N·m (3.0—4.0 kg-m, 22—29 ft-lb)
Final driven flange	50—60 N·m (5.0—6.0 kg-m, 36—43 ft-lb)
Swing arm left pivot bolt	80—120 N·m (8.0—12.0 kg-m, 58—87 ft-lb)
Swing arm right pivot bolt	8—12 N·m (0.8—1.2 kg-m, 6—9 ft-lb)
Swing arm pivot lock nut	80—120 N·m (8.0—12.0 kg-m, 58—87 ft-lb)

TOOLS

Special

Lock nut wrench	07908—ME90000
Hex bit 10 mm	07917—3710000
Bearing remover	07936—4150000
Shock absorber compressor attachment kit	07959—MB10000
Slider weight	07741—0010201

Common

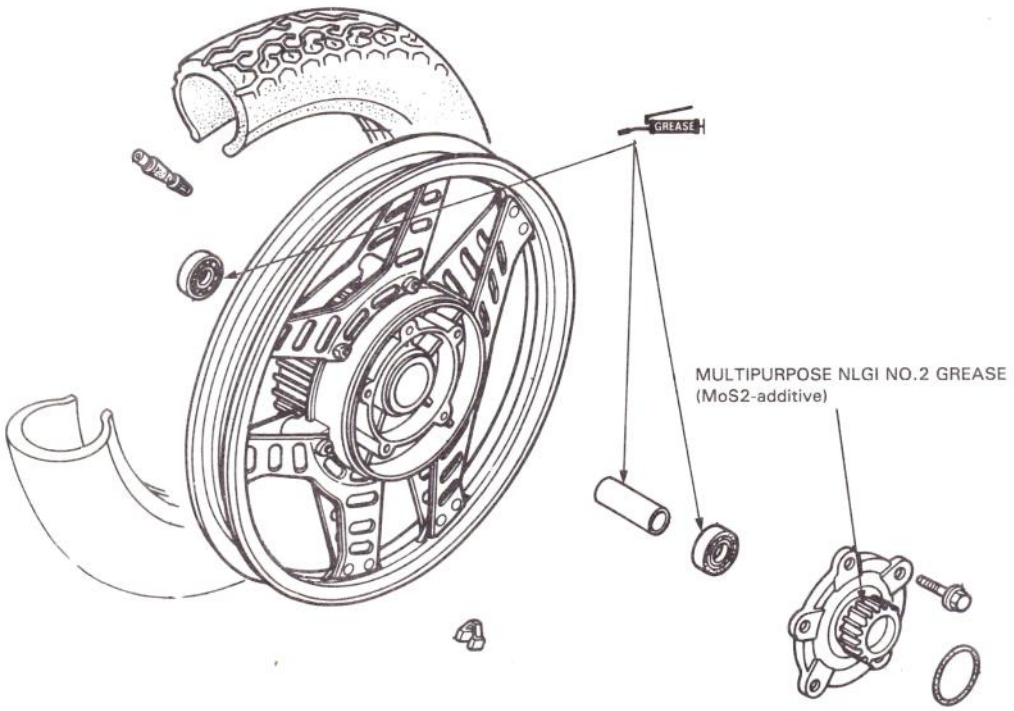
Driver	07749—0010000
Attachment, 42 X 47 mm	07746—0010300
Pilot, 17 mm	07746—0040400
Outer, 32 X 35 mm	07746—0010100
Outer, 37 X 40 mm	07746—0010200
Wheel bearing remover collet, 17 mm	07746—0050500
Remover shaft	07746—0050400
Shock absorber compressor	07959—3290001

REAR WHEEL

DISASEMBLY/ASSEMBLY

When assembling, drive the right bearing first and press the distance collar into place.

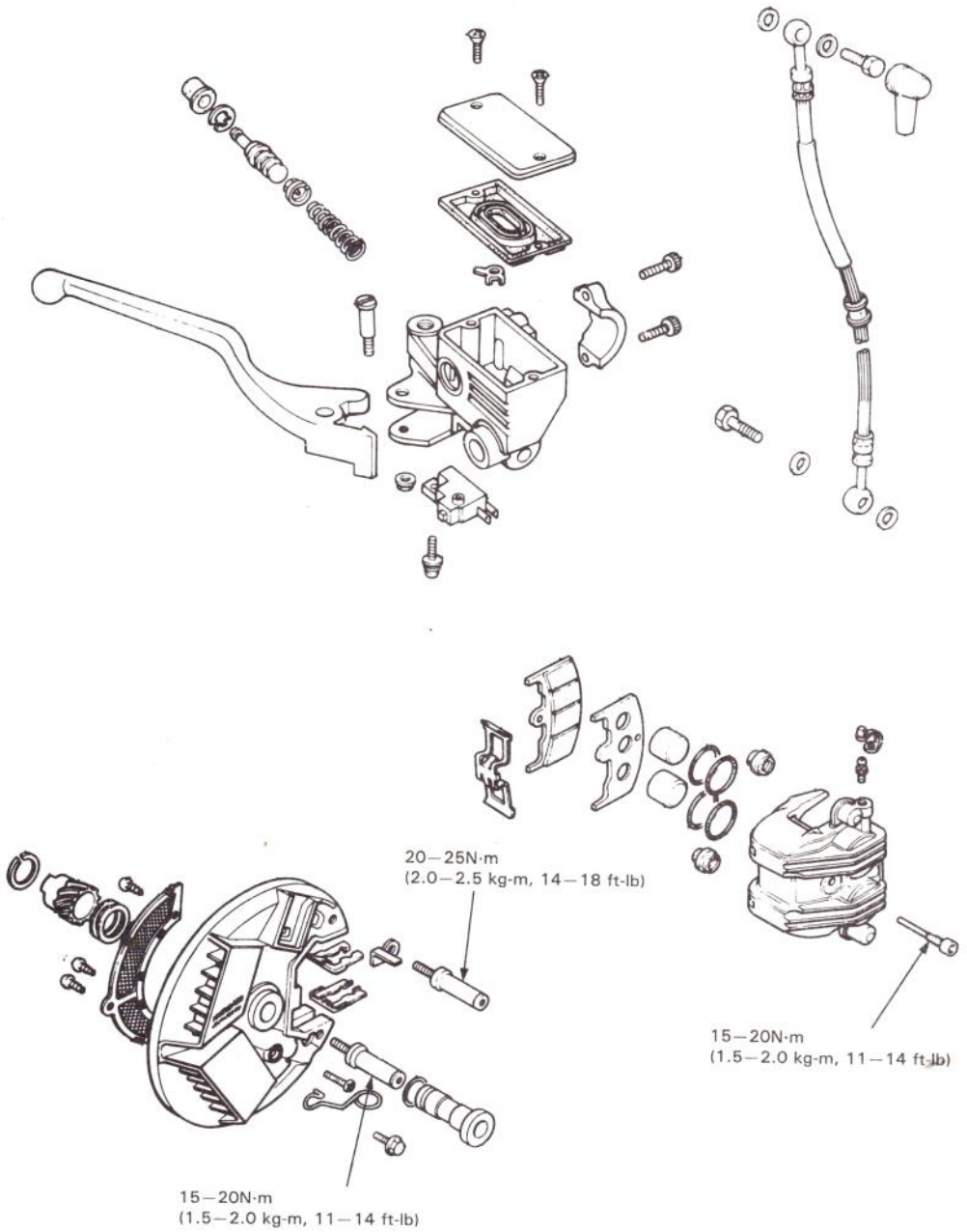
Drive in the left bearing squarely.



NOTE

Use lithium-based Multipurpose grease with MoS2-additive as follows:

- Molykote BR2-S manufactured by Dow Corning, U.S.A.
- Multipurpose M-2 manufactured by Mitsubishi Oil, Japan.
- Sta-Lube NLGI #2.
- Other lubricants of equivalent quality.
- The wheel uses a tubeless tire. For tubeless tire repairs, refer to the Tubeless Tire Manual.


20—25N·m
(2.0—2.5 kg-m, 14—18 ft-lb)
15—20N·m
(1.5—2.0 kg-m, 11—14 ft-lb)
15—20N·m
(1.5—2.0 kg-m, 11—14 ft-lb)

9. HYDRAULIC BRAKE

SERVICE INFORMATION	9- 1
BRAKE PAD/DISC	9- 2
MASTER CYLINDER	9- 3
BRAKE CALIPER	9- 4

SERVICE INFORMATION

GENERAL

- The brake calipers can be removed without disconnecting the hydraulic system.
- Bleed the hydraulic system if it is disassembled or if the brake feels spongy.
- Do not allow foreign material to enter the system when filling the reservoir.
- Avoid spilling brake fluid on painted surfaces or instrument lenses, as servere damage can result.
- Always check brake operation before riding the motorcycle.

SPECIFICATIONS

	STANDARD	SERVICE LIMIT
Front disc thickness	11.0—11.2 mm (0.43—0.44 in)	10.0 mm (0.39 in)
Front disc runout	————	0.3 mm (0.012 in)
Front master cylinder I.D.	12.700—12.743 mm (0.500—0.502 in)	12.76 mm (0.502 in)
Front master piston O.D.	12.657—12.684 mm (0.498—0.499 in)	12.64 mm (0.497 in)
Front caliper piston O.D.	33.923—33.928 mm (1.335—1.336 in)	33.87 mm (1.333 in)
Front caliper cylinder I.D.	33.960—34.010 mm (1.337—1.339 in)	34.03 mm (1.340 in)

TORQUE VALUES

Pad pin bolt	15—20 N·m (1.5—2.0 kg-m, 11—14 ft-lb)
Disc cover bolt	8—12 N·m (0.8—1.2 kg-m, 6—9 ft-lb)
Caliper pin bolt (upper)	20—25 N·m (2.0—2.5 kg-m, 14—18 ft-lb)
(lower)	15—20 N·m (1.5—2.0 kg-m, 11—14 ft-lb)

TOOLS

Special

Snap ring pliers	07914—3230001

BRAKE PAD/DISC

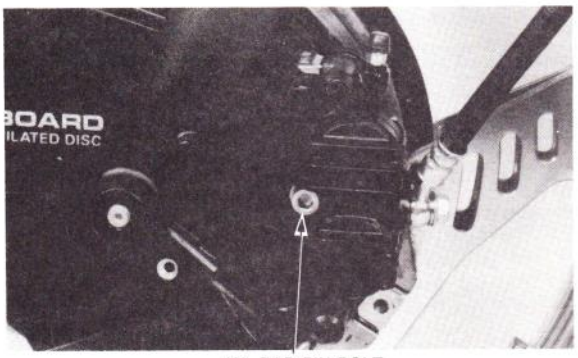
PAD REPLACEMENT

Remove the speedometer cable by removing speedometer cable set screw.

Remove the disc cover.

Push the caliper onto the disc and get the pistons in the caliper.

Remove the pad pin bolt.



Remove the pads and install the new pads in the caliper.

Tighten the pad pin bolt.

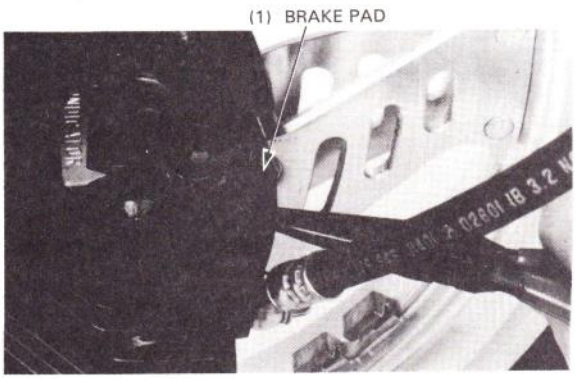
TORQUE: 15—20N·m
(1.5—2.0 kg-m, 11—14 ft-lb)

NOTE

Always replace the brake pads in pairs to assure even disc pressure.

After replacement, Check the brake fluid level.

Install the disc cover.
Install the speedometer cable.



MASTER CYLINDER

DISASSEMBLY

Drain brake fluid from the hydraulic system.

Remove the brake lever and rear view mirror from the master cylinder. Disconnect the brake hose.

CAUTION

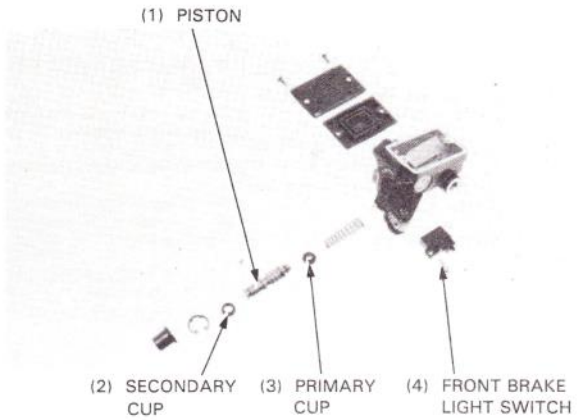
Avoid spiling brake fluid on painted surfaces. Place a rag over the fuel tank whenever the brake system is serviced.

NOTE

When removing the oil hose bolt, cover the end of the hose to prevent contamination. Secure the hose to prevent fluid from leaking out.

Remove the master cylinder.

Remove the piston boot and the circlip from the master cylinder body.



ASSEMBLY

CAUTION

Handle the master cylinder piston, cylinder and spring as a set.

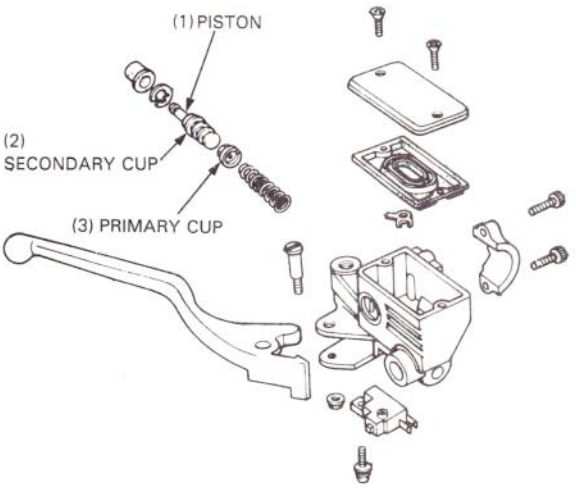
Assemble the master cylinder. Coat all parts with clean brake fluid before assembly. Install the spring and primary cup together.

Dip the piston cup in brake fluid before assembly.

CAUTION

When installing the cups, do not allow the lips to turn inside out. Be certain the circlip is seated firmly in the groove.

Install the piston clip and boot.

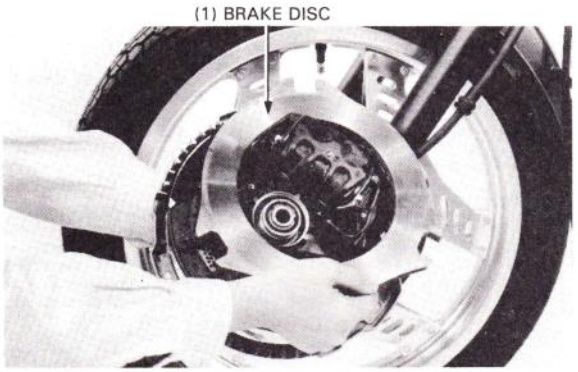


BRAKE CALIPER

REMOVAL

Remove the front wheel.

Remove the brake disc from the caliper Assy.
Remove the pads by removing the pad pin bolt (page 9-2).

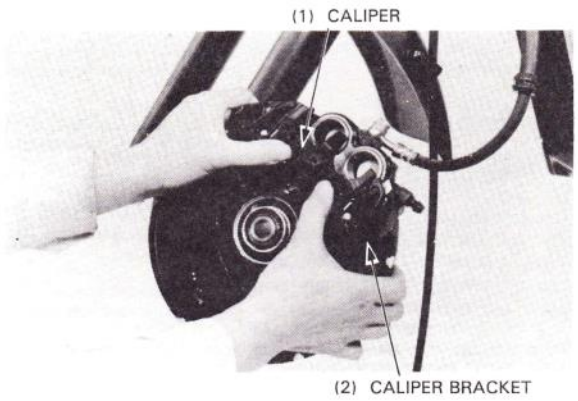


Push the caliper out from the caliper bracket.

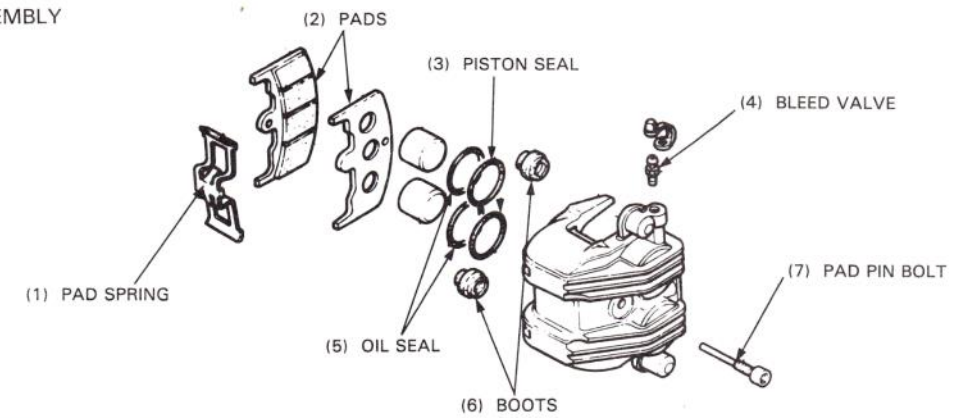
Remove the brake hose bolt and brake hose.

CAUTION

Avoid spilling brake fluid on painted surfaces.



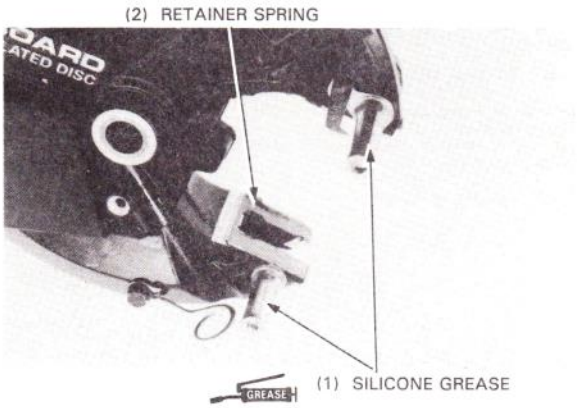
ASSEMBLY



INSTALLATION

Install the retainer spring on the caliper braket.

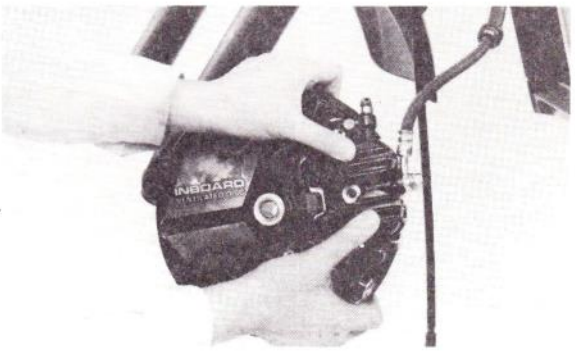
Apply silicon grease to the pin bolt.



Install the caliper on the caliper bracket Install the brake hose and tighten the brake hose bolt.

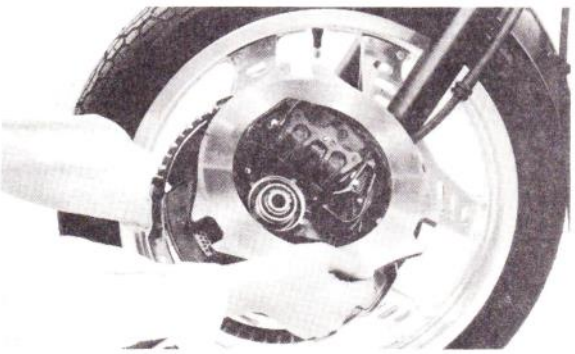
TORQUE: 25—30N·m
(2.5—3.0 kg-m, 18—25 ft-lb)

Install the brake pads.



Install the brake disc on the caliper. Set the brake disc, caliper assembly and disc cover to the front wheel and install the front wheel.

Filld the brake fluid reservoir and bleed the front brake system.



10. SWITCHES

SERVICE INFORMATION	10- 1
HANDLEBAR SWITCHES	10- 2

SERVICE INFORMATION

GENERAL

- Some wires have different colored bands around them near the connector. These are connected to other wires which correspond with the band color.
- Plastic plugs have locking tabs that must be released before disconnecting, and must be aligned when reconnecting.
- The following color codes used are indicated throughout this section and on the wiring diagram.

B = Black	G = Green	Lg = Light Green	R = Red
L = Blue	Gr = Grey	O = Orange	W = White
Br = Brown	LB = Light Blue	P = Pink	Y = Yellow

- To isolate an electrical failure, check the continuity of the electrical path through the part. A continuity check can usually be made without removing the part from the motorcycle. Simply disconnect the wires and connect a continuity tester or volt-ohmmeter to the terminals or connections.
- A continuity tester is useful when checking to find out whether or not there is an electrical connection between two points.
  An ohmmeter is needed to measure the resistance of a circuit, such as when there is a specific coil resistance involved, or when checking for high resistance by corroded connections.

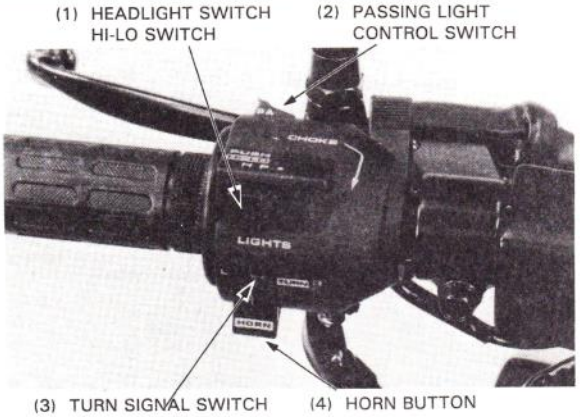
HANDLEBAR SWITCH

The handlebar cluster switches (lights, turn signals, horn, etc.) must be replaced as assemblies.

Remove the headlight and headlight case.

Continuity tests for the components of the handlebar cluster switches follow:

Continuity should exist between the color coded wires in each chart.



HEADLIGHT SWITCH

P: Br/L to Br/w
H: Br/L to Br/w

Headlight Switch

	BAT4	TL	BAT5	HL
•				
P	○——	——○		
H	○——	——○	○——	——○
Color code	Br/L	Br/W	B/R	•

HEADLIGH HI—LOW SWITCH

HI: L to B/R
MIDDLE (N): W to L to B/R
LO: W to B/R

Headlight Hi—Low Switch

	HL	Hi	Lo
Hi	○——	——○	
(N)	○——	○——	——○
Lo	○——		——○
Color code	•	L	W

HORN BUTTON

LG to W/g with button depressed; continuity. No continuity with button released.

Horn Button

	Ho_1	Ho_2
FREE		
PUSH	○——	——○
Color code	W/G	Lg

TURN SIGNAL SWITCH

LEFT: Gr to O
RIGHT: Gr to LB

Turn Signal Switch

	W	L	R
LEFT	○	○	
OFF			
RIGHT	○		○
Clolor code	Gr	O	LB

PASSING LIGHT CONTROL SWITCH

W/G to L with button depressed; continuity-No continuity with button released.

Passing Light Control Switch

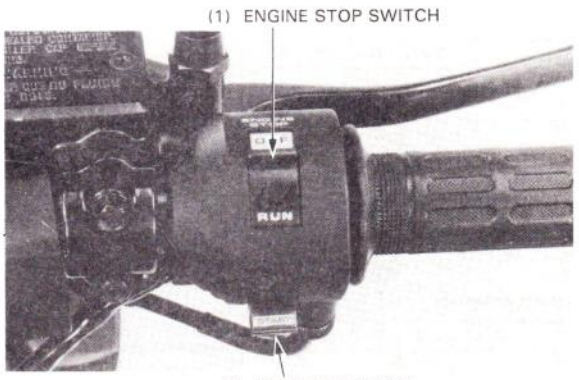
	PA	Hi
FREE		
PUSH	○	○
Color code	W/G	L

STARTER BUTTON

B to Y/R with button pushed in; continuity.

Starter Button

	BAT2	ST
FREE		
PUSH	○	○
Color code	B	Y/R



ENGINE STOP SWITCH

RUN: B to B/w; continuity.
OFF: No continuity.

Engine Stop Switch

	BAT2	IG2
OFF		
RUN	○	○
OFF		
Color code	B	B/W