Official

HONDA

SHOP MANUAL

NH80 aero80

'83—'84

© HONDA MOTOR CO., LTD., 1984
PRINTED IN USA

61GC801
IPC Ⓜ A5009209E

HONDA
NH80

HOW TO USE THIS MANUAL

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the U.S. Environmental Protection Agency. Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1 through 3 apply to the whole motor scooter, while sections 4 through 16 describe parts of the scooter, grouped according to location.

Find the section you want on this page, then turn to the table of contents on page 1 of that section.

Most sections start with an assembly or system illustration, service information and troubleshooting for the section. The subsequent pages give detailed procedures.

If you are familiar with this scooter read the TECHNICAL FEATURES in section 16.

If you don't know what the source of the trouble is, refer to section 18, Troubleshooting.

ALL INFORMATION, ILLUSTRATIONS, DIRECTIONS AND SPECIFICATIONS INCLUDED IN THIS PUBLICATION ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF APPROVAL FOR PRINTING. HONDA MOTOR CO., LTD. RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE AND WITHOUT INCURRING ANY OBLIGATION WHATEVER.
NO PART OF THIS PUBLICATION MAY BE REPRODUCED WITHOUT WRITTEN PERMISSION.

HONDA MOTOR CO., LTD.
Service Publications Office

CONTENTS

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

1. GENERAL INFORMATION

GENERAL SAFETY

WARNING

If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.

Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.

WARNING

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.

WARNING

The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

SERVICE RULES

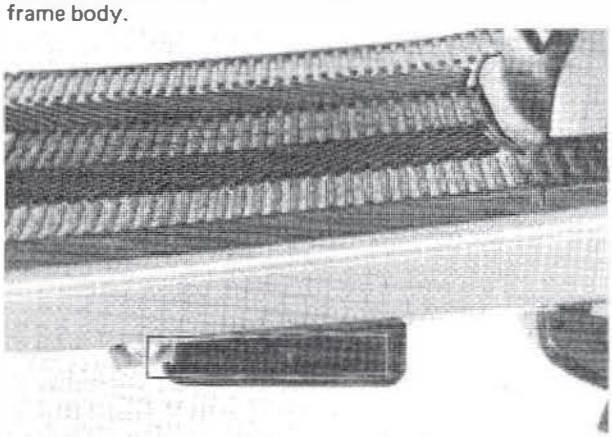
1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the scooter.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this scooter. Metric bolts, nuts, and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the scooter.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening bolts or nuts, begin with larger-diameter or inner bolts first, and tighten to the specified torque diagonally in 2–3 steps, unless a particular sequence is specified.
6. Clean parts in non-flammable or high flash point solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all electrical wires as shown on page 1-7 Cable and Harness Routing and always away from sharp edges and areas where they might be pinched between moving parts.

© HONDA MOTOR CO., LTD.

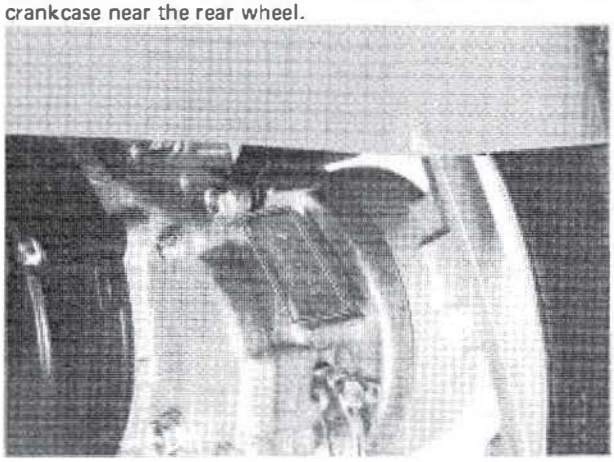
MODEL IDENTIFICATION

Beginning Frame Number: HF010*DS000001

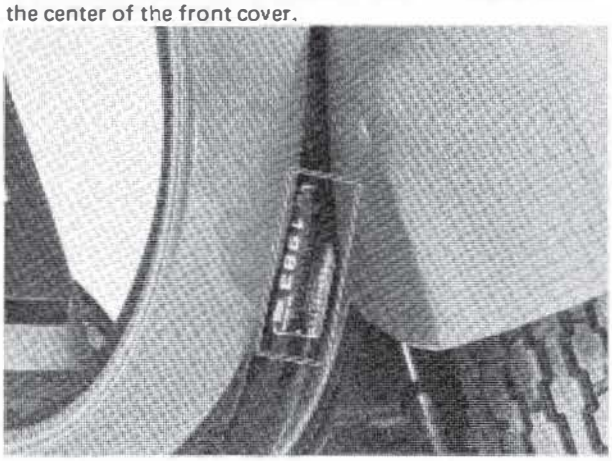
The frame serial number is stamped on the left side of the frame body.



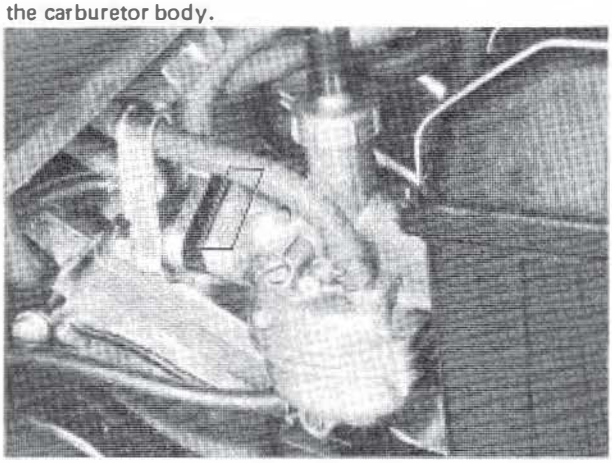
The engine serial number is stamped on the back of the crankcase near the rear wheel.



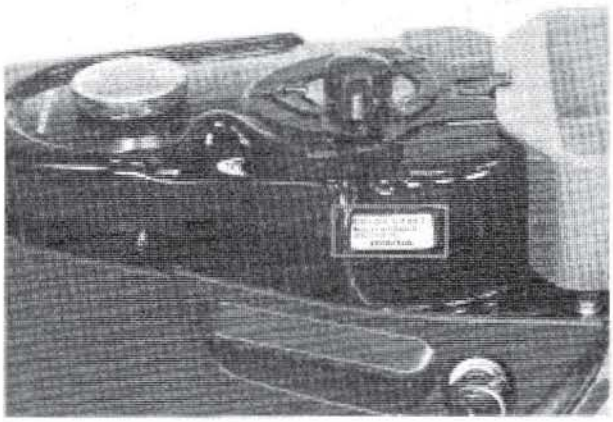
The vehicle identification number is on the frame pipe of the center of the front cover.



The carburetor identification number is on the left side of the carburetor body.



The color label is attached to the left side of the fuel tank, under the seat.



© HONDA MOTOR CO., LTD.

SPECIFICATIONS

ITEM				SPECIFICATIONS
DIMENSIONS	Overall length			1,685 mm (66.3 in)
	Overall width			665 mm (26.2 in)
	Overall height			1,070 mm (42.1 in)
	Wheelbase			1,170 mm (46.1 in)
	Seat height			730 mm (28.7 in)
	Foot peg height			256 mm (10.1 in)
	Ground clearance			110 mm (4.3 in)
	Dry weight			75 kg (165 lb)
	Curb weight			80 kg (176 lb)
FRAME	Type			Back bone
	Front suspension, travel			Bottom link, 81 mm (3.19 in)
	Rear suspension, travel			Engine/Final drive unit swingarm, 78 mm (3.07 in)
	Gross vehicle weight rating, '83:			222 kg (490 lb)
	'84:			232 kg (505 lb)
	Vehicle capacity load, '83:			145 kg (320 lb)
	'84:			150 kg (330 lb)
	Front tire size			3.50—10—4PR
	Rear tire size			3.50—10—4PR
	Cold tire pressure	Up to 90 kg (200 lbs) load	Front	21 psi (150 kPa, 1.5 kg/cm²)
			Rear	24 psi (175 kPa, 1.75 kg/cm²)
		Up to vehicle capacity load	Front	21 psi (150 kPa, 1.5 kg/cm²)
			Rear	36 psi (250 kPa, 2.5 kg/cm²)
	Front brake, lining swept area			Internal expanding shoe, 86 cm² (13.4 sq in)
	Rear brake, lining swept area			Internal expanding shoe, 60 cm² (9.3 sq in)
	Fuel capacity			5.3 liters (1.4 US gal)
	Fuel reserve capacity			0.9 liters (0.25 US gal)
	Caster			63°
	Trail			70 mm (2.8 in)
ENGINE	Type			Air cooled 2-stroke
	Cylinder arrangement			Single cylinder 15° inclined from vertical
	Bore and stroke			48 x 44 mm (1.89 x 1.73 in)
	Displacement			80 cm³ (4.88 cu in)
	Compression ratio			6.8 : 1
	Maximum horsepower			5 BHP/5,000 rpm
	Maximum torque			0.82 kg-m (5.9 ft-lb)/3,500 rpm
	Transmission oil capacity			90 cc (0.09 US qt)
	Oil tank capacity			1.3 liters (1.4 US qt)
	Lubrication system			Lubricated by mixing oil with fuel
	Air filtration			Oiled urethane foam
	Cylinder compression			10.0—14.0 kg/cm² (142—200 psi)
	Port timing	Intake	Open	Reed valve controlled
			Close	Reed valve controlled
		Exhaust	Open	80° BBDC
			Close	80° ABDC
		Scavenge	Open	55° BBDC
			Close	55° ABDC
	Engine dry weight			18 kg (39.7 lb)
	Idle speed			1,800 ± 100 rpm

© American Honda Motor Co., Inc. 1983 - All Rights Reserved

ITEM		SPECIFICATION	
CARBURETION	Carburetor type, size	Piston valve, 16 mm (0.63 in) venturi dia.	
	Identification number	PB54D	
	Air screw	Refer to page 4-10	
	Float level	8.5 mm (0.33 in)	
DRIVE TRAIN	Clutch type	Automatic dry centrifugal clutch	
	Primary reduction	V-belt	
	Gear ratio	2.3–1.2 : 1	
	Final reduction	6.914 : 1	
ELECTRICAL	Ignition type	C.D.I.	
	Ignition timing "F" mark	14° BTDC at idle	
	Starting system	Starting motor and kickstarter	
	Alternator	12V–110W/5,000 rpm	
	Battery capacity	12V–5AH	
	Spark plug	NGK	ND
	Standard	BPR6HS	W20FPR
	For cold climate, (Below 5°C, 41°F)	BPR5HS	W16FPR
	For extended high speed riding	BPR7HS	W22FPR
	Spark plug gap	0.6–0.7 mm (0.024–0.028 in)	
	Fuse capacity	7A	
LIGHTS	Headlight (High/Low)	12V–25/25W	
	Tail/brake light	12V–3/32 cp	SAE No. 1157
	Turn signals (Front)	12V–32 cp	SAE No. 1156
	(Rear)	12V–32 cp	SAE No. 1156
	Speedometer light	12V–2 cp	SAE No. 57
	Oil indicator light	12V–2 cp	SAE No. 57
	Turn signal indicator	12V–2 cp	SAE No. 57
	High beam indicator	12V–2 cp	SAE No. 57

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

TORQUE VALUES

ENGINE

ITEM	THREAD DIA. mm	TORQUE N·m (kg-m, ft-lb)	REMARKS
Cylinder head	6	8–12 (0.8–1.2, 6–9)	While the engine is cold (below 35°C, 95°F).
Flywheel	10	35–40 (3.5–4.0, 25–29)	
Drive pulley	10	35–40 (3.5–4.0, 25–29)	
Clutch outer	10	35–40 (3.5–4.0, 25–29)	
Driven face and clutch	–	35–40 (3.5–4.0, 25–29)	
Intake pipe	6	8–12 (0.8–1.2, 6–9)	
Carburetor	6	9–12 (0.9–1.2, 7–9)	
Crankcase	6	8–12 (0.8–1.2, 6–9)	

FRAME

ITEM	THREAD DIA. mm	TORQUE N·m (kg-m, ft-lb)	REMARKS
Steering stem nut	–	80–120 (8.0–12.0, 58–87)	
Front axle nut	12	50–70 (5.0–7.0, 36–51)	Self-locking nut
Engine hanger bolt	10	27–33 (2.7–3.3, 20–24)	Self-locking nut
Rear axle nut	14	80–100 (8.0–10.0, 58–72)	Self-locking nut
Rear shock absorber (Upper)	10	30–40 (3.0–4.0, 22–29)	
Rear shock absorber (Lower)	8	20–30 (2.0–3.0, 14–22)	
Rear shock absorber damper lock nut	8	15–25 (1.5–2.5, 11–18)	Apply a locking agent.
Rear brake arm	5	4–7 (0.4–0.7, 3–5)	
Kick starter pedal	6	8–10 (0.8–1.0, 6–7)	
Front brake arm	6	8–12 (0.8–1.2, 6–9)	
Front fork pivot arm	8	20–24 (2.0–2.4, 14–17)	
Muffler	8	40–50 (4.0–5.0, 29–36)	

Torque specifications listed above are for important fasteners. Others should be tightened to the standard torque values below.

STANDARD TORQUE VALUES

ITEM	TORQUE N·m (kg-m, ft-lb)	ITEM	TORQUE N·m (kg-m, ft-lb)
5 mm bolt and nut	4– 6 (0.4–0.6, 3–4)	5 mm screw	3– 5 (0.3–0.5, 3–4)
6 mm bolt and nut	8–12 (0.8–1.2, 6–9)	6 mm screw	7–11 (0.7–1.1, 5–8)
8 mm bolt and nut	18–25 (1.8–2.5, 13–18)	6 mm flange bolt and nut	10–14 (1.0–1.4, 7–10)
10 mm bolt and nut	30–40 (3.0–4.0, 22–29)	8 mm flange bolt and nut	20–30 (2.0–3.0, 14–22)
12 mm bolt and nut	50–60 (5.0–6.0, 36–43)	10 mm flange bolt and nut	30–40 (3.0–4.0, 22–29)

© HONDA MOTOR CO., LTD.

TOOLS

SPECIAL

DESCRIPTION	NUMBER	ALTERNATIVE	NUMBER	REF. SECT.
Clutch spring compressor	07960-KJ90000			8-15, 8-22
Seal and case assembling tool	07965-GC70000	Assembly collar	07965-GC70100	10-5, 10-6
		Assembly tool (bolt only)	07965-1480200	
Bearing driver	07945-GC80000			8-20
Spring attachment holder	07967-GC80000	Spring attachment holder	07967-1180100	13-7, 13-8
Lock nut wrench, 39 mm	07916-1870001			8-15, 8-22
*Universal bearing puller	07631-0010000			10-3
Crankcase puller	07935-KG80000			8-9, 10-2
*Bearing remover set, 12 mm	07936-1660001	Bearing remover, 12 mm	07936-1660100	9-4
		Remover weight	07936-3710200	
*Bearing remover, 15 mm	07936-KC10000			9-4
Hand vacuum pump	ST-AH-260-MC7	(U.S.A. only)		4-13
Rear shock absorber attachment A	07967-GA70101			13-7, 13-8
*Bearing driver attachment, 28 x 30 mm	07946-1870100			8-21

*These tools are not available in the U.S.A. Equivalent tools or commercially available in U.S.A. or other methods are recommended. Refer to the alternative column.

COMMON

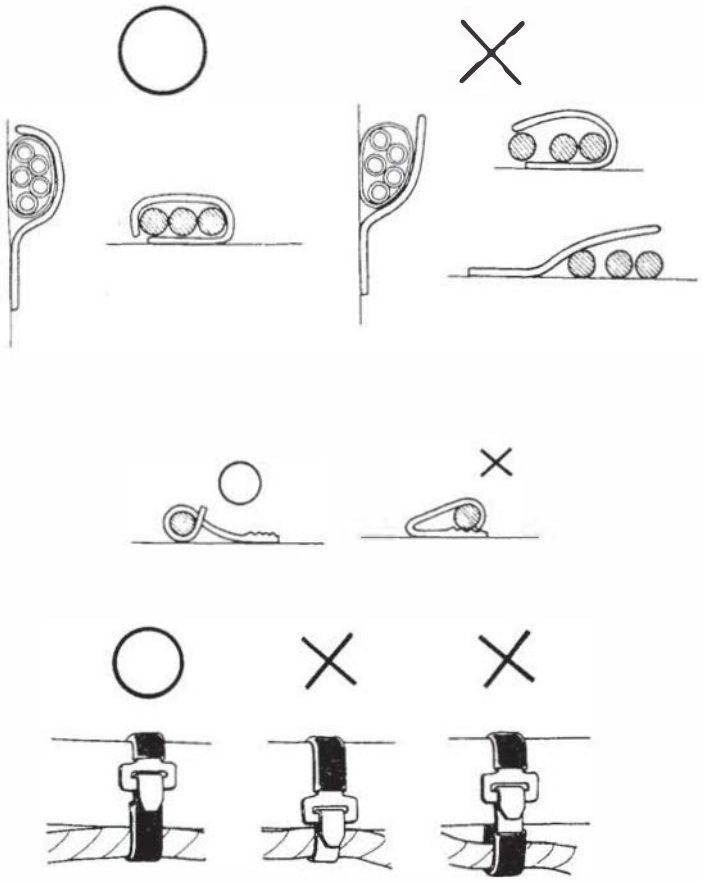
DESCRIPTION	NUMBER	ALTERNATIVE	NUMBER	REF. SECT.
Float level gauge	07401-0010000			4-7
Universal holder	07725-0030000			7-2, 7-5, 8-2, 8-7, 8-15, 8-22
Pin spanner	07702-0020000	Pin spanner	07702-0010000	12-20, 12-23
Attachment, 32 x 35 mm	07746-0010100			9-5, 9-6, 12-11
Attachment, 37 x 40 mm	07746-0010200			9-5
Attachment, 42 x 47 mm	07746-0010300			10-5, 12-22
Pilot, 12 mm	07746-0040200			9-6, 12-11
Pilot, 15 mm	07746-0040300			8-21, 9-5
Pilot, 17 mm	07746-0040400			9-5
Pilot, 25 mm	07746-0040600			10-5
Driver	07749-0010000	Driver (May be used when pilot not used)	07949-6110000	
Bearing remover shaft	07746-0050100			8-18
Bearing remover head, 12 mm	07746-0050300			8-18
Bearing remover head, 15 mm	07746-0050400			8-18
Rear shock absorber compressor	07959-3290001			13-7, 13-8
Rotor puller	07733-0010000	Rotor puller	07933-0010000	7-3
Lock nut wrench, 30 x 32 mm	07716-0020400	Equivalent tools commercially available in U.S.A.		12-7, 12-8
Extension bar	07716-0020500			12-7, 12-8
Fork seal driver	07747-0010100	Fork seal driver	07947-3550000	12-23
Fork seal driver attachment	07747-0010400			12-23

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

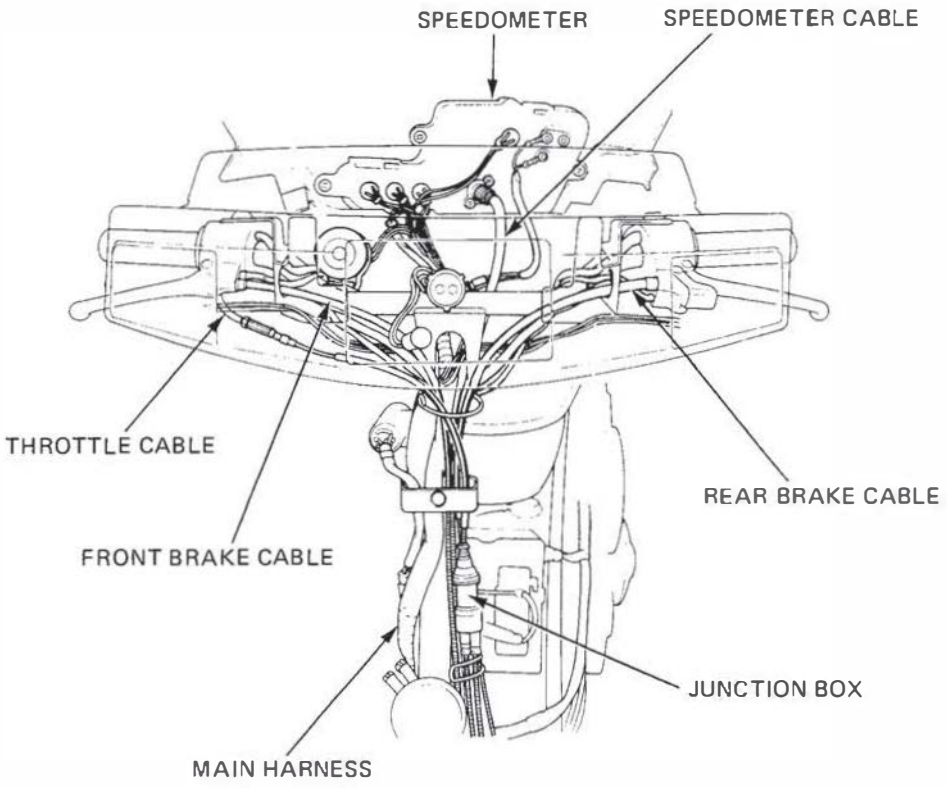
CABLE & HARNESS ROUTING

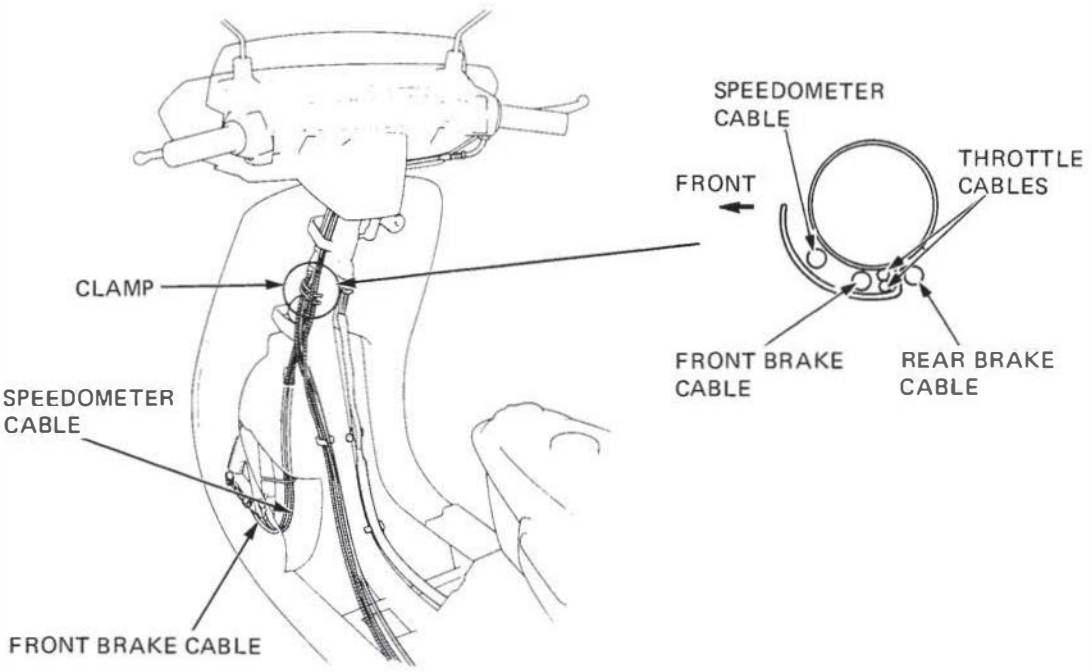
Note the following when routing cables and wire harnesses.
A loose wire, harness or cable can be a safety hazard. After clamping, check each wire to be sure it is secure.

- Do not squeeze wires against the weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled tight or have excessive slack.
- Protect wires and harnesses with electrical tape or tubing if they are contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use wires or harnesses with a broken insulator. Repair by wrapping them with a protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other hot parts.
- Be sure grommets are seated in their grooves properly.
- After clamping, check each harness to be certain that it is not interfering with any moving or sliding parts.
- After routing, check that the wire harnesses are not twisted or kinked.
- Wire harnesses routed along the handlebars should not be pulled tight, have excessive slack, be pinched, or interfere with adjacent or surrounding parts in all steering positions.

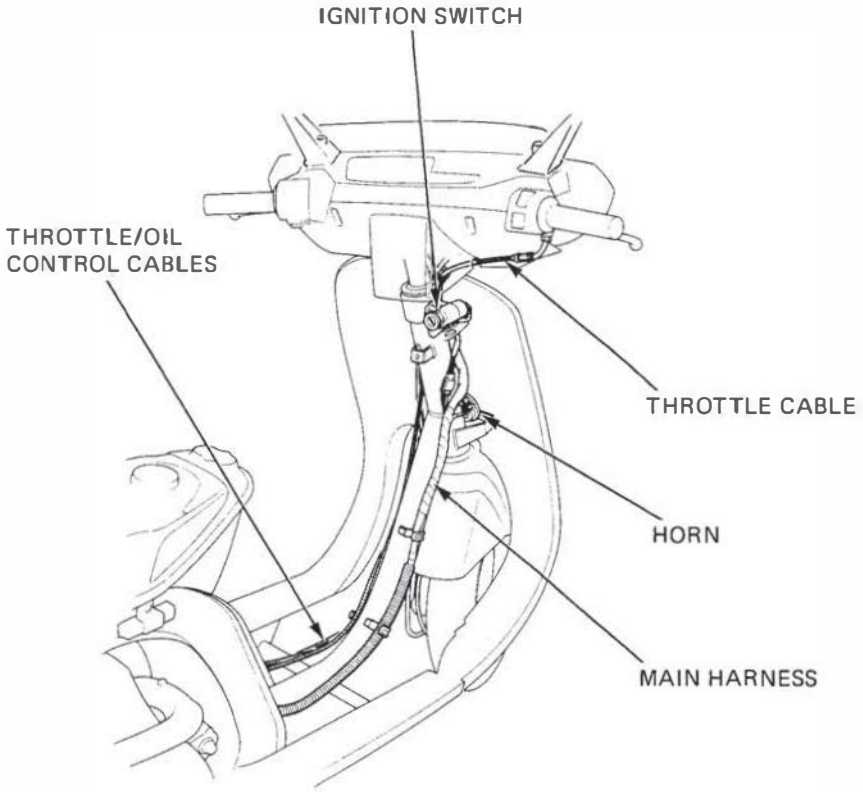


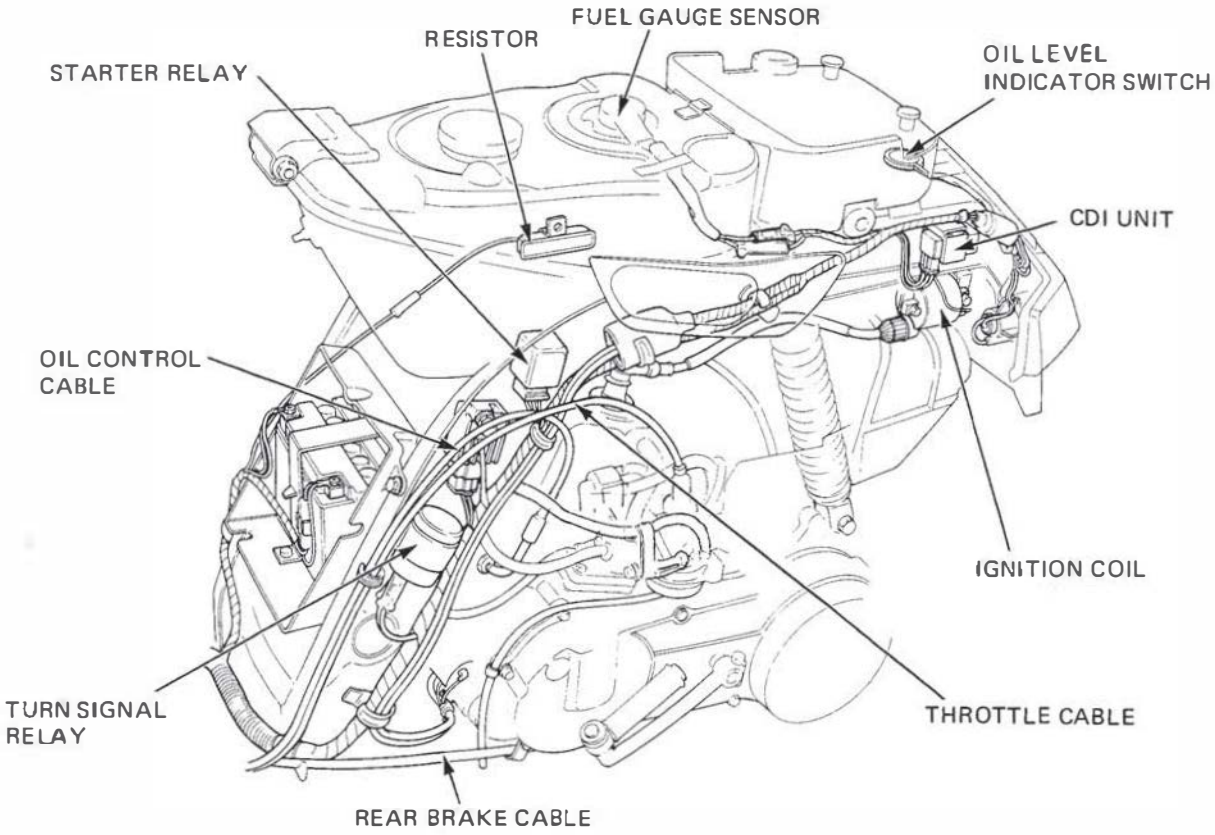
© HONDA MOTOR CO., LTD.



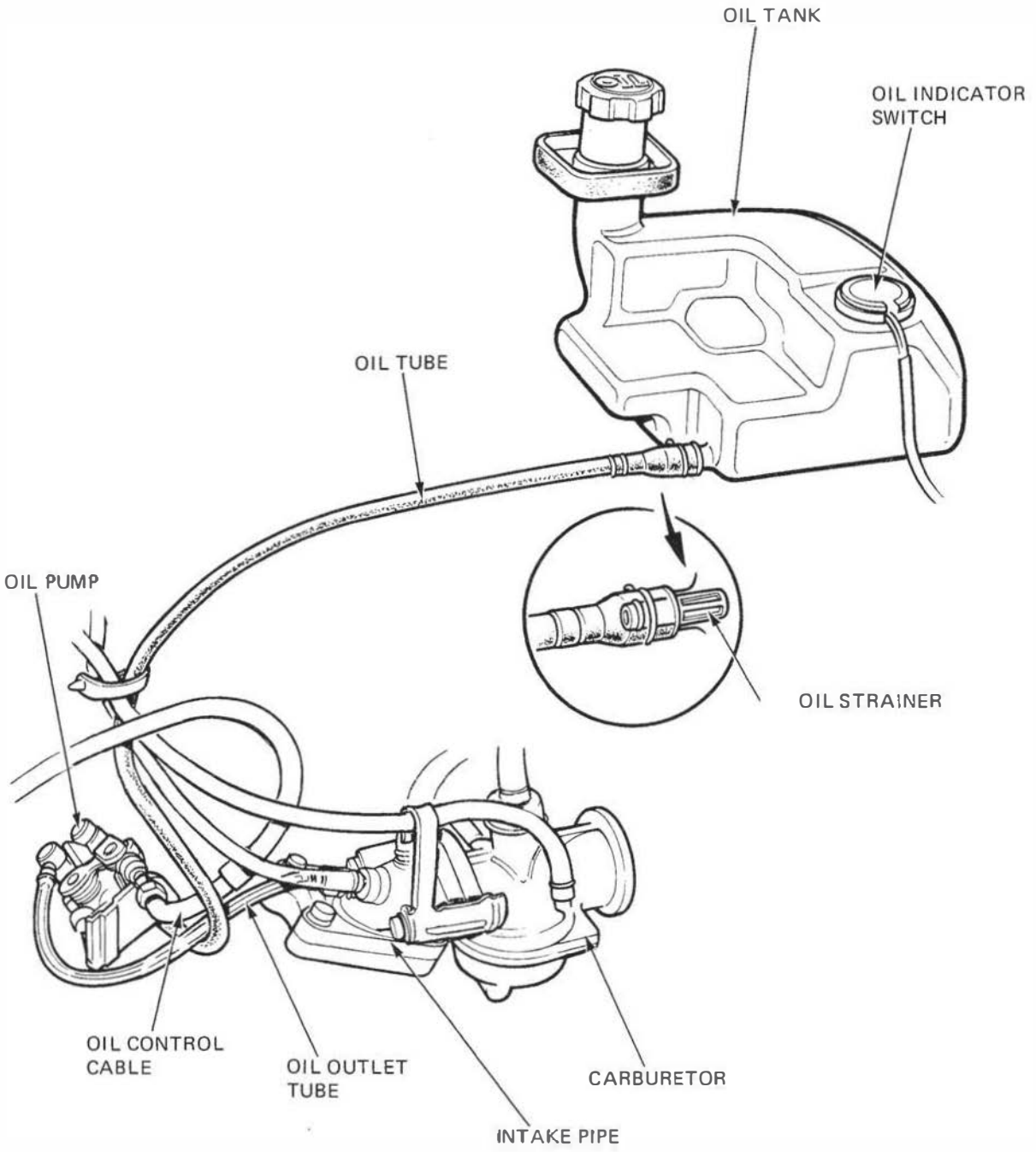


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.





© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

2. LUBRICATION

SERVICE INFORMATION

GENERAL

- The engine must be removed from the frame when removing and installing the oil pump.
- When removing and installing the oil pump, use care not to allow dust and dirt to enter the engine and oil line.
- Bleed air from the oil pump if there is air in the oil inlet line (from the oil tank to the oil pump) or if the oil line is disconnected.
- Bleed air from the oil outlet line (from the oil pump to the carburetor) if the line is disconnected.

SPECIFICATIONS

Engine oil recommendation:	Honda 2-stroke oil or equivalent
Final reduction oil capacity:	90 cc (0.09 US qt)
Final reduction oil recommendation:	Honda 4-stroke oil or equivalent Viscosity: SAE 10W-40 API Service classification: SE or SF

TORQUE VALUE

Final reduction oil drain bolt	10–14 N·m (1.0–1.4 kg-m, 7–10 ft·lb)

TROUBLESHOOTING

Excessive smoke and/or carbon on spark plug
1. Pump not properly adjusted (excessive oil)
2. Low quality engine oil
3. Incorrect engine oil

Overheating
1. Oil pump not adjusted properly (insufficient oiling)
2. Low quality oil
3. Incorrect engine oil

Seized piston
1. No oil in tank or clogged oil line
2. Pump not properly adjusted (insufficient oiling)
3. Air in oil lines
4. Faulty oil pump

Oil not flowing out of tank
1. Clogged oil tank cap breather hole
2. Clogged oil strainer

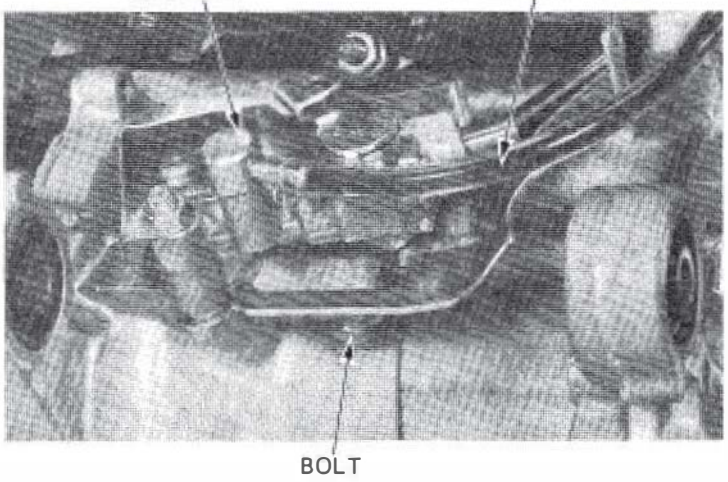
© HONDA MOTOR CO., LTD.

OIL PUMP REMOVAL

NOTE:

> Before removing the oil pump, clean the oil pump and crankcase.

Remove the engine (Section 5).
Remove the starter motor (Page 15-13).
Disconnect the oil outlet line from the intake pipe.
Remove the oil pump attaching bolt and remove the oil pump.



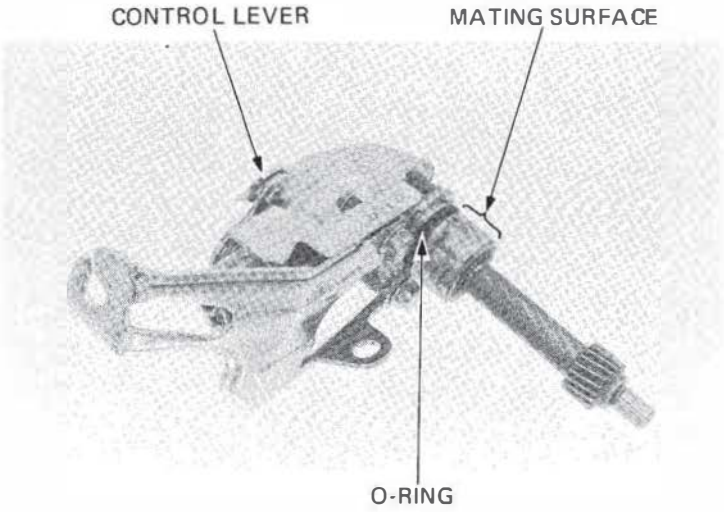
OIL PUMP INSPECTION

Remove the oil pump and inspect the following items:

- Damaged or weak O-rings
- Damage to crankcase mating surface
- Damage to pump body
- Control lever operation
- Worn or damaged pump gears
- Oil leaks

CAUTION:

> *Do not disassemble the oil pump.*

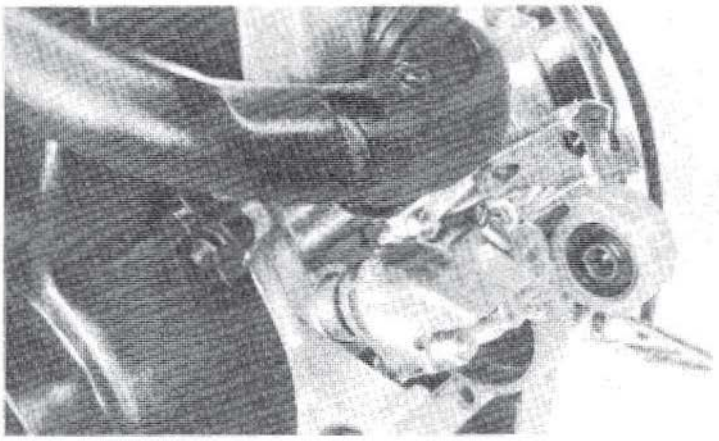


OIL PUMP INSTALLATION

Install the oil pump onto the crankcase.

CAUTION:

> - *Lubricate the pump gear and O-ring with clean grease before installation.*
> - *Make sure that the oil pump is inserted into the crankcase properly.*

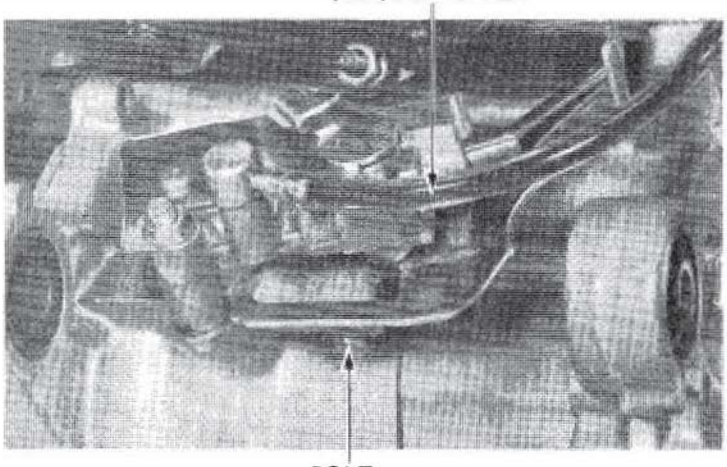


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Tighten the oil pump attaching bolt securely.
Connect the oil outlet line.
Install the starter motor (Page 15-15).
Install the engine (Page 5-4).

NOTE:

After installation, perform the following inspections and adjustment:
- Control cable adjustment (Page 2-4)
- Oil pump bleeding.
- Check for oil leaks.



OIL PUMP BLEEDING

CAUTION:

- *Air in the oil system will block or restrict oil flow and may result in severe engine damage.*
- *Bleed air from the oil inlet line first, then bleed air from the oil outlet line.*

OIL INLET LINE/OIL PUMP

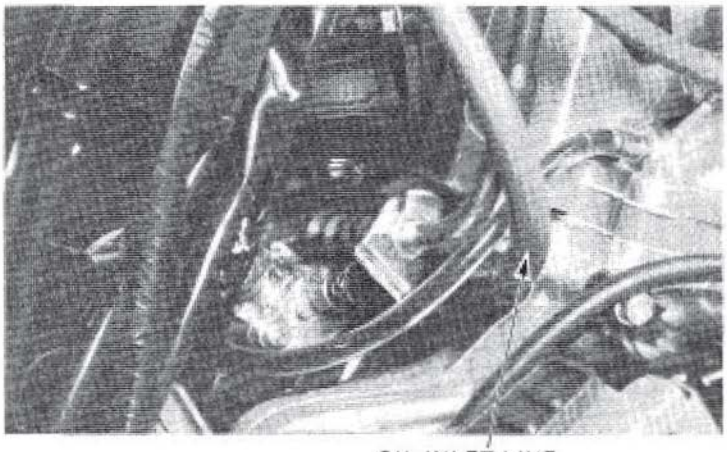
CAUTION:

Bleed air from the oil lines whenever the oil lines or pump have been removed or there is air in the oil lines.

Fill the oil tank with recommended oil.
Place a shop towel around the oil pump.
Disconnect the oil inlet line from the oil pump.
Fill the oil pump with oil by squirting clean oil through the joint (about 3 cc).
Fill the oil line with oil and connect it to the joint of the oil pump.
After installation, make sure there is no air in the oil inlet line.

CAUTION:

Bleed air from the oil outlet line after bleeding the oil inlet line and oil pump.



© HONDA MOTOR CO., LTD.

OIL OUTLET LINE

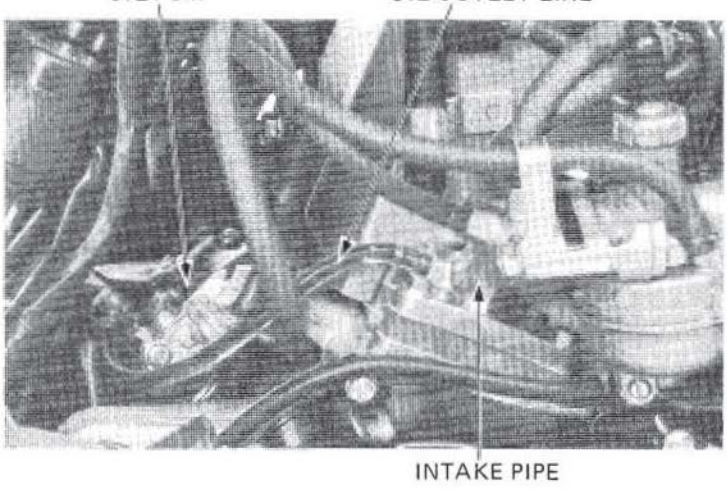
1. Disconnect the oil outlet line at the carburetor and force air out of the tube by filling it with oil using an oil squirt can.
2. Connect the oil outlet line to the carburetor.
3. Start the engine and allow it to idle with the oil control lever in the fully open position, making sure that there are no air bubbles in the oil from the oil pump.
4. If there are air bubbles, repeat steps 1 through 3 until the oil line is free of air bubbles.

WARNING

- *Perform this operation in a well ventilated area.*

CAUTION:

- *Do not race the engine unnecessarily.*



OIL PUMP CONTROL CABLE ADJUSTMENT

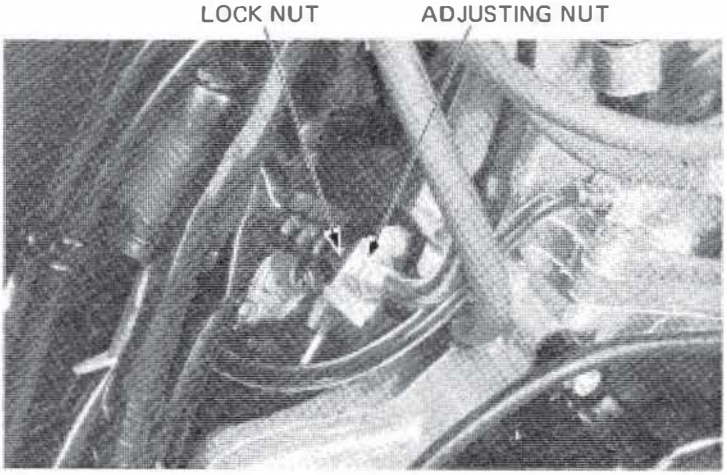
NOTE:

The oil pump control cable should be adjusted after the throttle grip free play adjustment.

Remove the frame center cover (Page 11-3).
Loosen the oil pump control cable lock nut and open the throttle fully.
Check that the aligning mark on the oil pump control lever is aligned with the index mark projection on the pump body.
Adjust if necessary by turning the adjusting nut.

CAUTION:

Reference tip adjustment within 1 mm (0.04 in) of index mark on the open side is acceptable. However, the aligning mark must never be on the closed side of the index mark, otherwise engine damage will occur because of insufficient lubrication.



Excessive white smoke or hard starting:
- Pump control lever excessively open

Seized piston:
- Pump control lever not properly adjusted

© HONDA MOTOR CO., LTD.

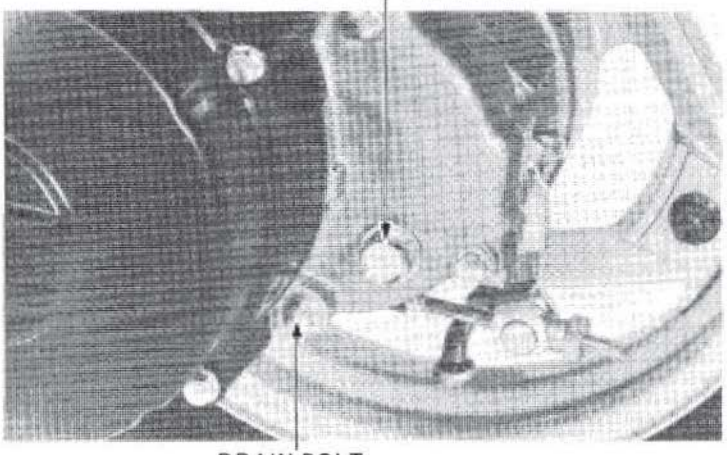
FINAL REDUCTION OIL

CHECK

NOTE:

> Place the scooter on a level ground and support with the center stand.

Remove the oil level check bolt and check that the oil level is at the oil level check bolt hole.



CHANGE

Remove the oil level check bolt.
Remove the drain bolt to allow the oil to drain thoroughly.
Reinstall the drain bolt.

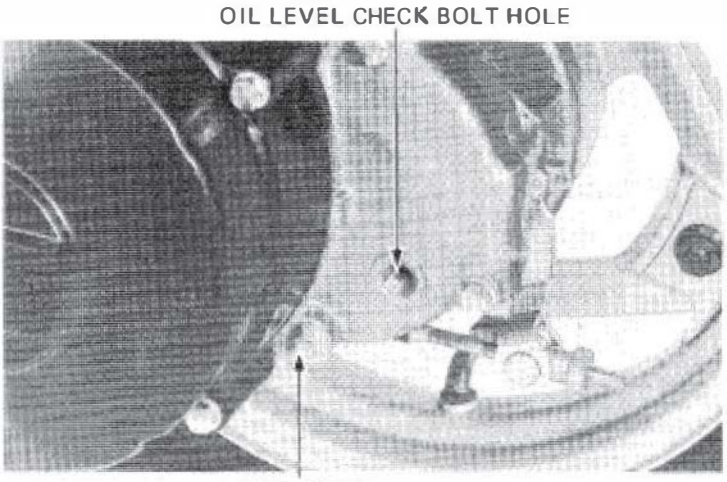
TORQUE: 10–14 N·m (1.0–1.4 kg-m, 7–10 ft-lb)

NOTE:

> Check that the sealing washer is in good condition.

Fill the final reduction case up to the proper level with recommended oil.

OIL CAPACITY: 90 cc (0.09 US qt)
SPECIFIED OIL: HONDA 4-STROKE OIL or equivalent, 10W-40

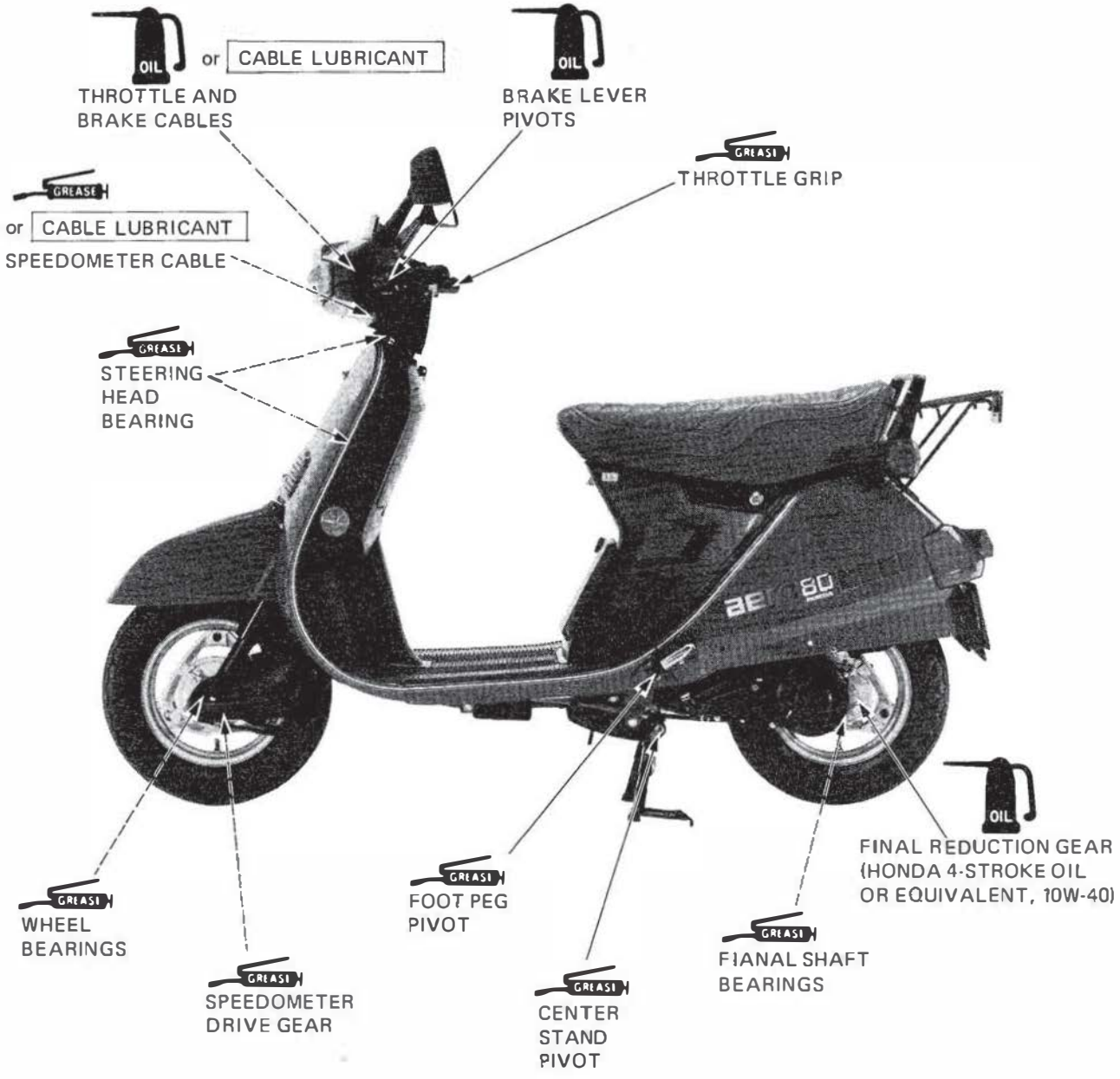


CONTROL CABLE LUBRICATION

Periodically disconnect the throttle, oil control and brake cables at their upper ends. Thoroughly lubricate the cables and their pivot points with a commercially available cable lubricant.

© HONDA MOTOR CO., LTD.

LUBRICATION POINTS



© HONDA MOTOR CO., LTD.

SERVICE INFORMATION

GENERAL

Oil pump — See page 2-2.
Transmission oil — See page 2-4.
Clutch shoe wear — See page 8-19.

SPECIFICATIONS

<Engine>
Spark plug:

Standard		For cold climate (below 5°C, 41°F)		For extended high speed riding	
NGK	ND	NGK	ND	NGK	ND
BPR6HS	W20FPR	BPR5HS	W16FPR	BPR7HS	W22FPR

Spark plug gap: 0.6–0.7 mm (0.024–0.028 in)
Throttle grip free play: 2–6 mm (1/8–1/4 in)
Idle speed: 1,800 ± 100 rpm
Cylinder compression: 10.0–14.0 kg/cm² (142–200 psi)

<Chassis>
Front brake free play: 10–20 mm (3/8–3/4 in)
Rear brake free play: 10–20 mm (3/8–3/4 in)

Tire:

Tire size		Front	Rear
		3.50–10–4PR	3.50–10–4PR
Cold tire pressure psi (kPa, kg/cm²)	Up to 90 kg (200 lbs) load	21 (150, 1.5)	24 (175, 1.75)
	90 kg (200 lbs) load and up to vehicle capacity load	21 (150, 1.5)	36 (250, 2.5)

©HONDA MOTOR CO., LTD.

MAINTENANCE SCHEDULE

Perform the Pre-ride Inspection in the Owner's Manual at each scheduled maintenance period.

I : INSPECT AND CLEAN, ADJUST, LUBRICATE, OR REPLACE IF NECESSARY.
C : CLEAN
R : REPLACE
A : ADJUST
L : LUBRICATE

		ITEM \ FREQUENCY	WHICHEVER COMES FIRST ▼ EVERY	ODOMETER READING (NOTE 2) 600 mi (1,000 km)	2,500 mi (4,000 km)	5,000 mi (8,000 km)	7,500 mi (12,000 km)	Refer to page
EMISSION RELATED ITEMS	*	FUEL LINES			I	I	I	3-3
	*	FUEL FILTER					R	3-3
	*	THROTTLE OPERATION		I	I	I	I	3-4
		AIR CLEANER	NOTE 1		C	C	C	3-4
		CARBURETORCHOKE CLEANER	NOTE 1		C	C	C	3-5
		SPARK PLUG			R	R	R	3-6
	**	OIL PUMP		I	I	I	I	2-2
		ENGINE OIL LINES			I	I	I	3-6
	*	ENGINE OIL STRAINER SCREEN				C		3-6
	**	MUFFLER DECARBONIZATION					C	3-7
	*	CARBURETOR-IDLE SPEED		I	I	I	I	3-7
NON-EMISSION RELATED ITEMS	*	TRANSMISSION OIL	2 YEARS R*					2-4
		BATTERY	MONTH	I	I	I	I	3-8
		BRAKE SHOE WEAR			I	I	I	3-8
		BRAKE SYSTEM		I	I	I	I	3-9
		PARKING BRAKE		I	I	I	I	3-10
	*	BRAKE LIGHT SWITCH		I	I	I	I	3-10
	*	HEADLIGHT AIM		I	I	I	I	3-10
	*	SUSPENSION		I	I	I	I	3-11
	*	NUTS, BOLTS, FASTENERS		I	I	I	I	3-11
	**	CLUTCH SHOE WEAR			I	I	I	8-19
	**	WHEELS		I	I	I	I	3-11
	**	STEERING HEAD BEARINGS		I			I	3-12

* SHOULD BE SERVICED BY AN AUTHORIZED HONDA SCOOTER DEALER, UNLESS THE OWNER HAS PROPER TOOLS AND SERVICE DATA AND IS MECHANICALLY QUALIFIED.

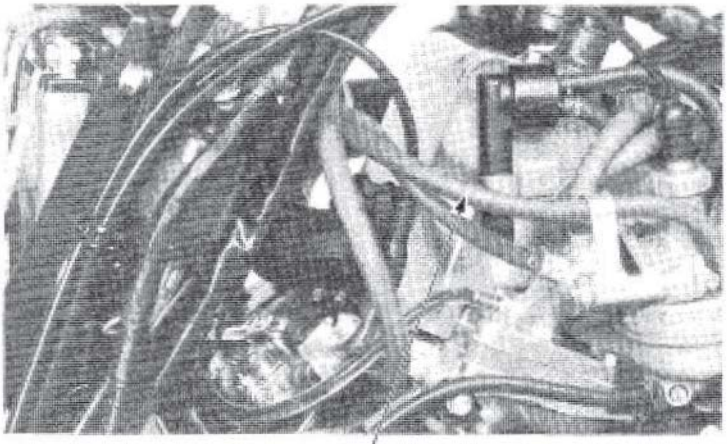
** IN THE INTEREST OF SAFETY, WE RECOMMEND THESE ITEMS BE SERVICED ONLY BY AN AUTHORIZED HONDA SCOOTER DEALER.

NOTES: 1. Service more frequently when riding in dusty areas.
2. For higher odometer readings, repeat at the frequency interval established here.

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

FUEL LINES

Remove the frame center cover (Section 11).
Check the fuel lines and replace any parts which show deterioration, damage or leakage.
Install the frame center cover.



FUEL LINE

FUEL FILTER

Replace the fuel filter with a new one when indicated by the maintenance schedule (page 3-2).
Remove the frame center cover and battery box (Section 11).
Disconnect the fuel lines from the fuel filter.
Replace the fuel filter with a new one.

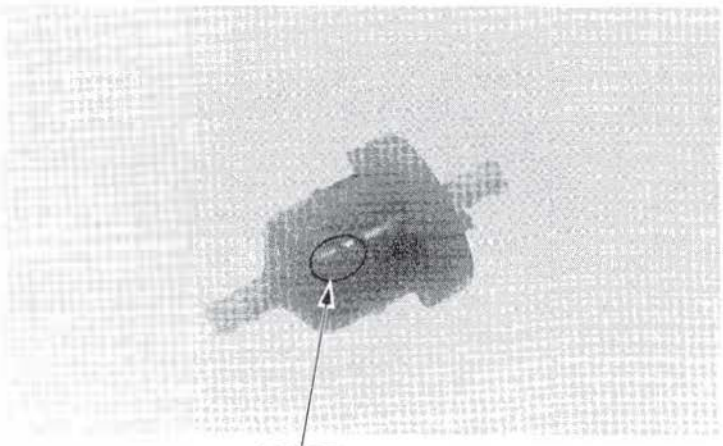
WARNING

Gasoline is flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.

FUEL FILTER

Install the fuel filter with the arrow in the normal direction of fuel flow.

After installing, check that there are no fuel leaks.



ARROW

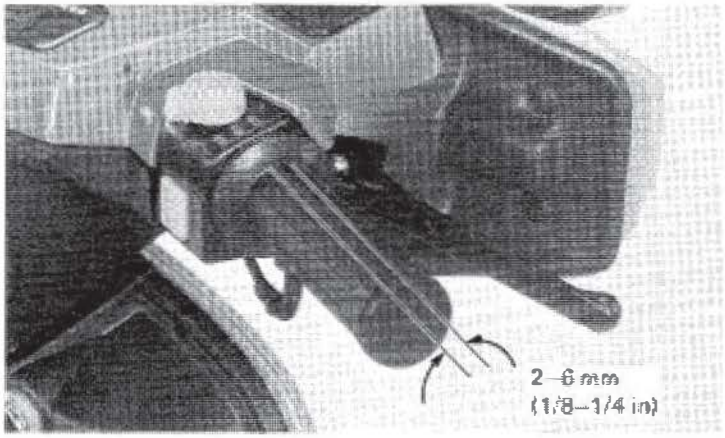
© HONDA MOTOR CO., LTD.

THROTTLE OPERATION

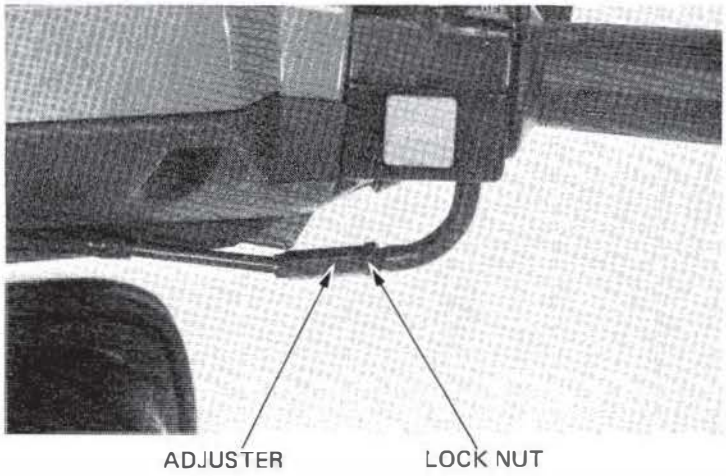
Check for smooth throttle grip full opening and automatic full closing in all steering positions.
Check the throttle cable and replace it, if it is deteriorated, kinked or damaged.

Lubricate the throttle cable (page 2-5), if throttle operation is not smooth.
Measure the throttle grip free play at the throttle grip flange.

FREE PLAY: 2–6 mm (1/8–1/4 in)

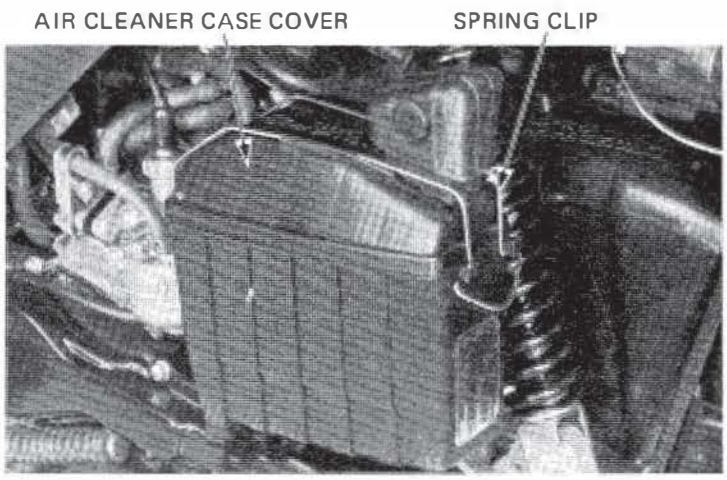


Adjustments can be made by loosening the lock nut and turning the throttle grip free play adjuster.
Replace the throttle cable when the above procedure is no longer effective.



AIR CLEANER

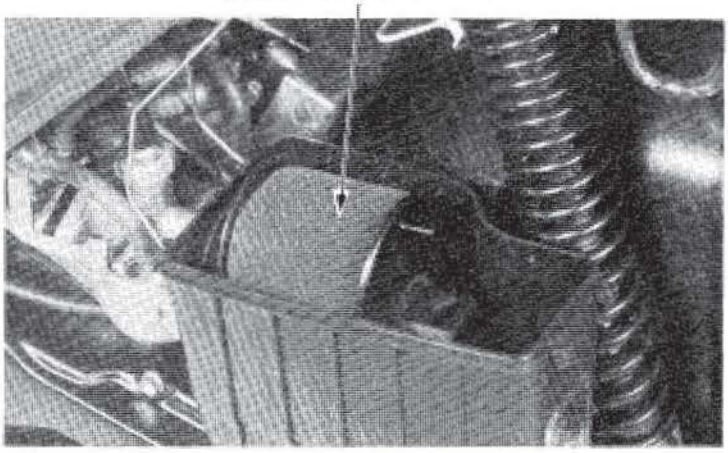
Remove the left frame cover.
Remove the spring clip and remove the air cleaner case cover.



© HONDA MOTOR CO., LTD.

Remove the air cleaner element.

AIR CLEANER ELEMENT

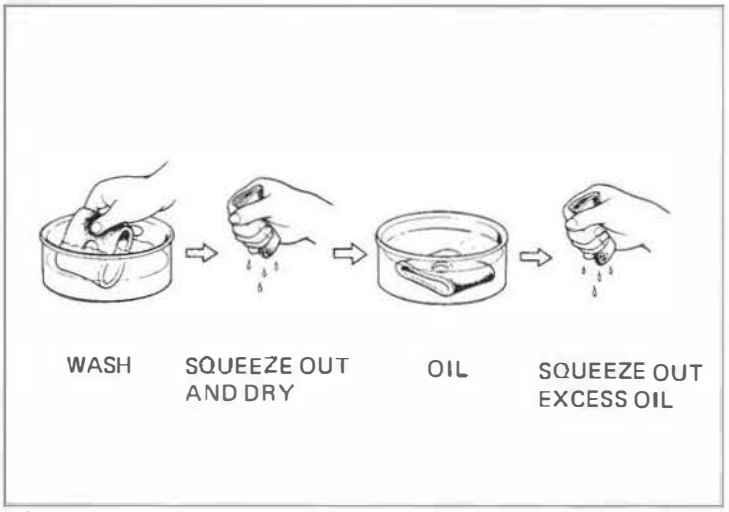


Wash the element in non-flammable or high flash point solvent, squeeze out and allow to dry.

WARNING

Never use gasoline or low flash point solvents for cleaning the air cleaner element. A fire or explosion could result.

Soak the element in clean motor oil (SAE 10W–40) or gear oil (#80–90) and squeeze out the excess. Reinstall the element, element holder, air cleaner case cover and carburetor cover.



CARBURETORCHOKE CLEANER

Remove the left frame cover.
Remove the carburetorchoke cleaner chamber and remove the element.
Wash the element in non-flammable or high flash point solvent, squeeze out the excess and allow it to dry.

WARNING

Never use gasoline or low flash point solvents for cleaning the cleaner element. A fire or explosion could result.

Soak the element in clean motor oil (SAE 10W–40) or gear oil (#80–90) and squeeze out excess.
Reinstall the carburetorchoke cleaner element and chamber, and clamp the chamber in position.

ELEMENT

CARBURETORCHOKE CLEANER CHAMBER

© HONDA MOTOR CO., LTD.

SPARK PLUG

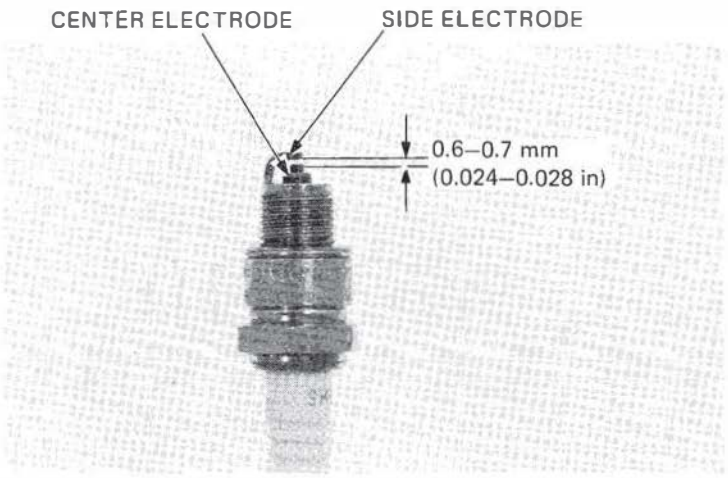
RECOMMENDED SPARK PLUG

	NGK	ND
Standard	BPR6HS	W20FPR
For cold climate (Below 5°C, 41°F)	BPR5HS	W16FPR
For extended high speed riding	BPR7HS	W22FPR

Disconnect the spark plug cap.
Clean any dirt from around the spark plug base.
Remove and discard the spark plug.
Measure the new spark plug gap using a wire-type feeler gauge.

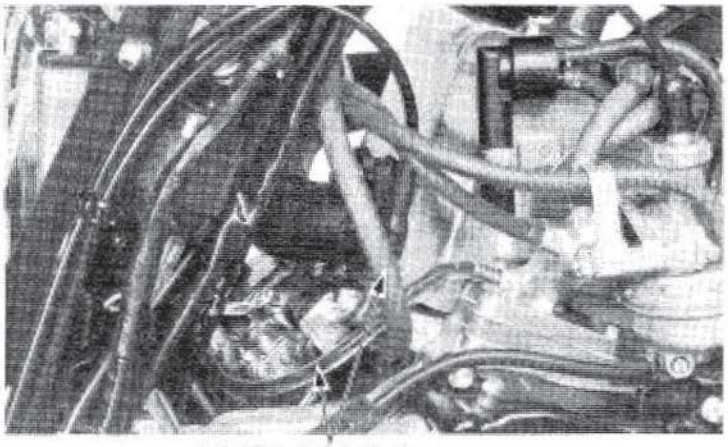
SPARK PLUG GAP: 0.6–0.7 mm (0.024–0.028 in)

Adjust by bending the side electrode carefully.
With the plug washer attached, thread the spark plug in by hand to prevent crossthreading.
Tighten the spark plug another 1/2 turn with a spark plug wrench to compress the plug washer.
Then connect the spark plug cap.



ENGINE OIL LINE

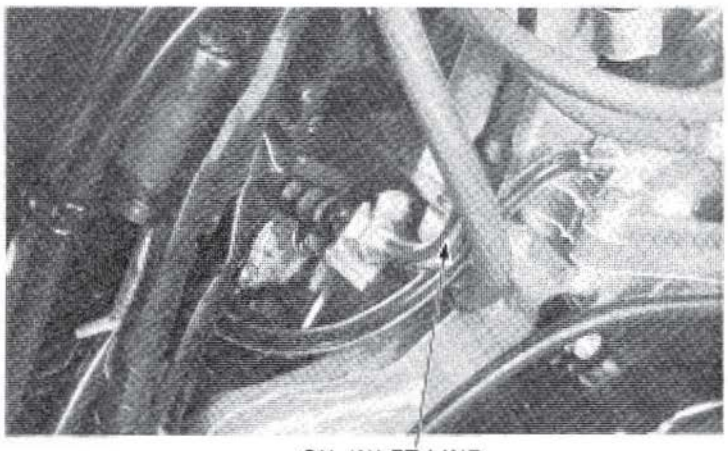
Remove the frame center cover (Section 11).
Check the engine oil lines and replace any parts which show deterioration, damage or leakage.
Bleed the oil pump and oil line, if they have air bubbles in them (Page 2-3).
Install the frame center cover.



ENGINE OIL LINES

ENGINE OIL STRAINER SCREEN

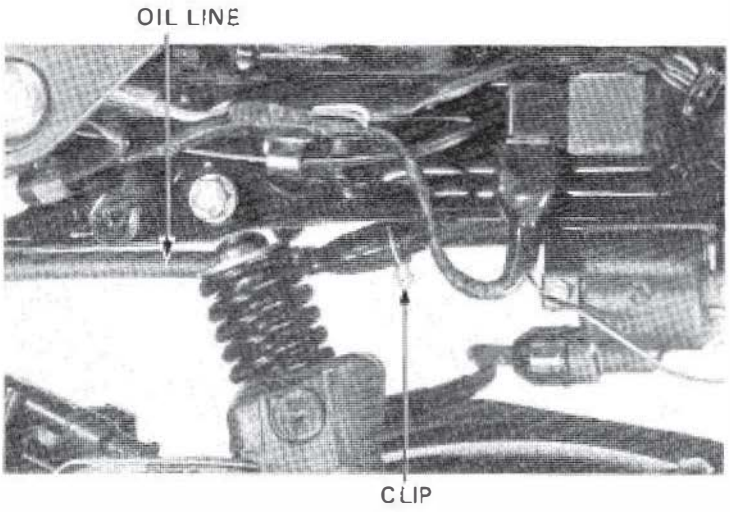
Remove the frame center cover (Page 11-3).
Disconnect the oil inlet line at the oil pump and allow the oil to drain into a clean container.



OIL INLET LINE

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

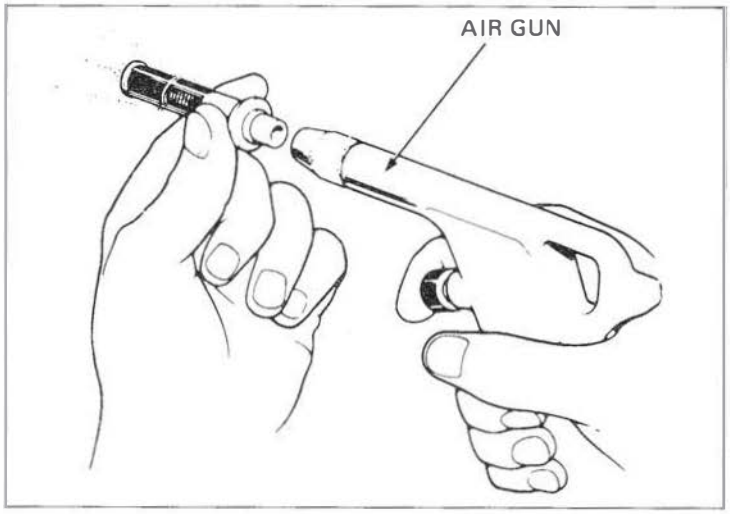
Disconnect the oil line at the bottom of the oil tank by loosening the clip.
Remove the oil strainer.



Clean the oil strainer with compressed air. Replace the oil strainer if necessary. The installation sequence is essentially the reverse order of removal.
Fill the tank with the recommended oil up to the proper level and bleed air from the oil pump and oil line (Page 2-3).

NOTE:

- Connect the oil line securely.
- Check for leaks.



MUFFLER DECARBONIZATION

Remove the muffler (Page 13-2).
Remove the carbon from the muffler.
Reinstall the muffler (Page 13-3).

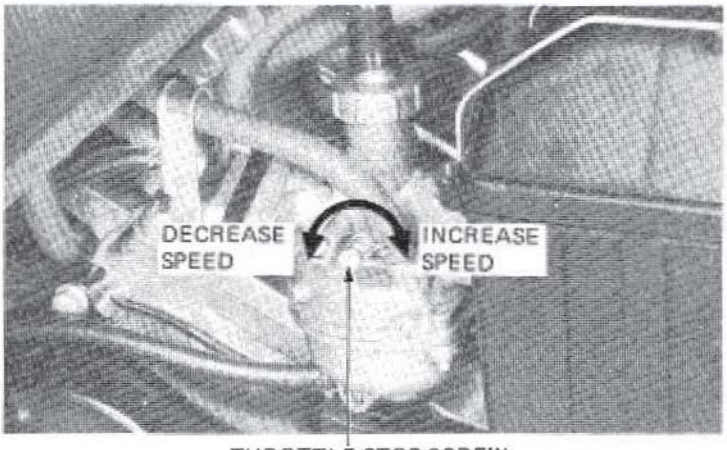
CARBURETOR IDLE SPEED

NOTE:

- Inspect and adjust idle speed after all other engine adjustments are within specifications.
- The engine must be warm for accurate adjustment. Ten minutes of stop-and-go riding is sufficient.

Remove the left side cover.
Warm up the engine and place the scooter on its center stand.
Turn the throttle stop screw as required to obtain the specified idle speed.

IDLE SPEED: 1,800 ± 100 rpm



© HONDA MOTOR CO., LTD.

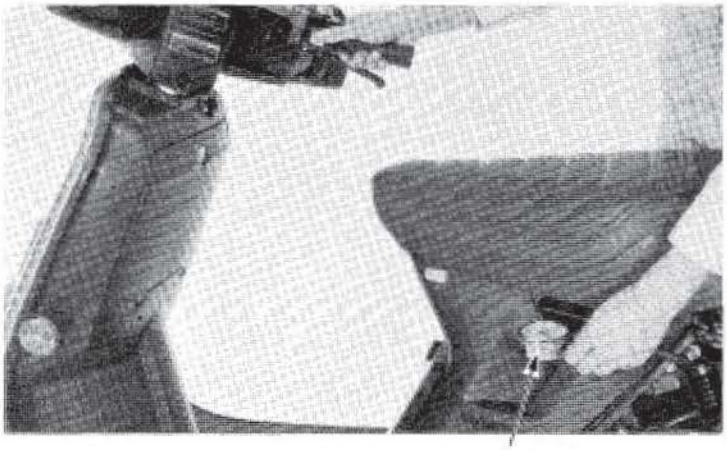
COMPRESSION TEST

Remove the left frame cover and warm up the engine.
Stop the engine and remove the spark plug.
Insert a compression gauge. Open the throttle grip fully and operate the kick starter several times.

COMPRESSION: 10.0–14.0 kg/cm² (142–200 psi)

Low compression can be caused by:
- Blown cylinder head gasket
- Worn piston rings
- Worn cylinder

High compression can be caused by:
- Carbon deposits in combustion chamber or on piston head



COMPRESSION GAUGE

BATTERY

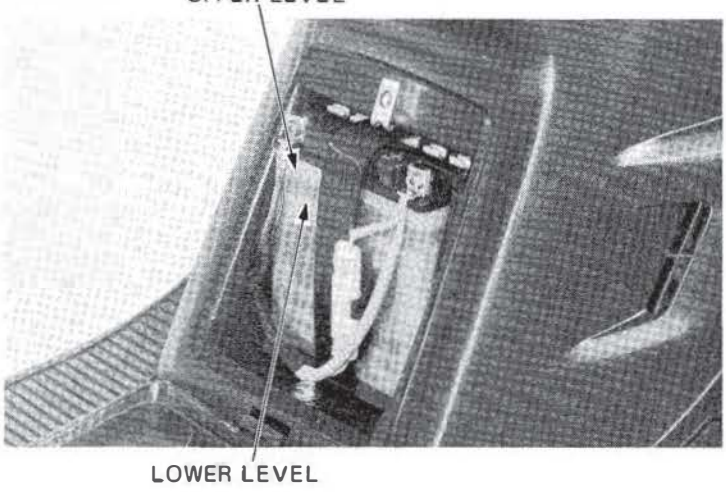
Remove the battery cover.
Inspect the battery fluid level. When the fluid level nears the lower level mark, refill with distilled water to the upper level.
- Check the specific gravity of the battery electrolyte in each cell (Page 15-3).
- Recharge the battery if necessary (Page 15-4).

NOTE:

Add only distilled water. Tap water will shorten the service life of the battery.

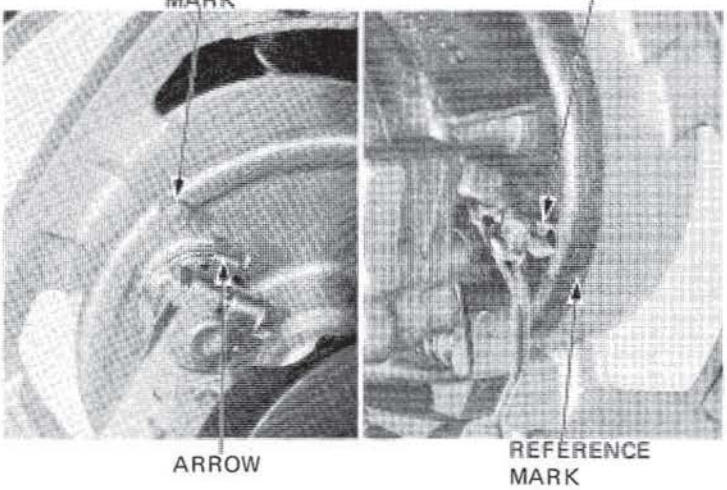
WARNING

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.



BRAKE SHOE WEAR

Replace the brake shoes if the arrow on the brake arm aligns with the reference mark "Δ" when the brake is fully applied.



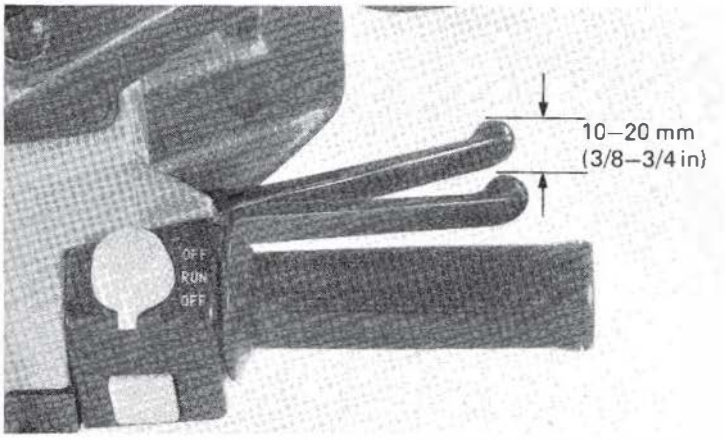
Date of Issue: May, 1983
© HONDA MOTOR CO., LTO.

BRAKE SYSTEM

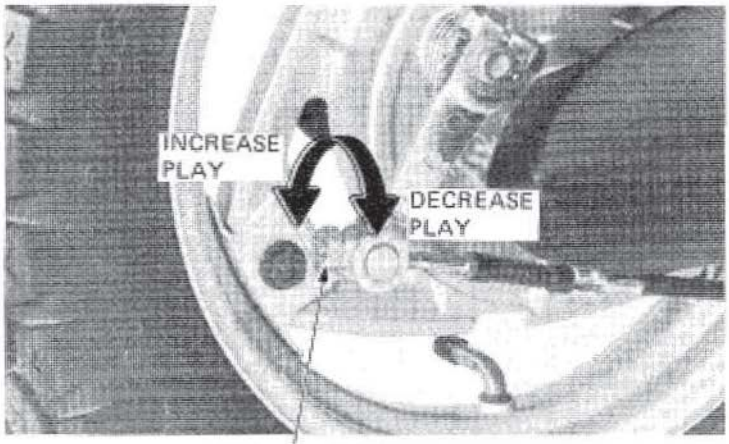
FRONT BRAKE

Measure the front brake lever free play at the tip of the brake lever.

FREE PLAY: 10–20 mm (3/8–3/4 in)



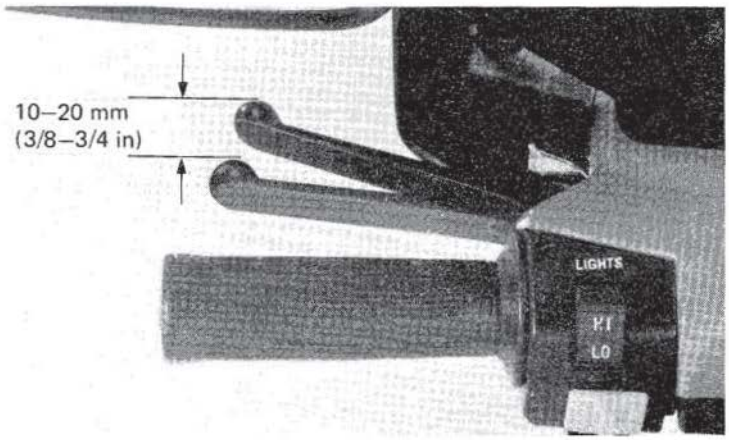
If adjustment is necessary, turn the front brake adjusting nut.



REAR BRAKE

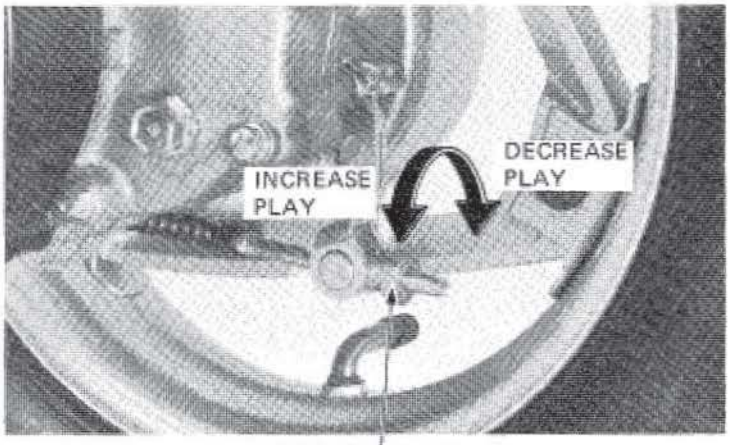
Measure the rear brake lever free play at the tip of the brake lever.

FREE PLAY: 10–20 mm (3/8–3/4 in)



© HONDA MOTOR CO., LTD.

If adjustment is necessary, turn the rear brake adjusting nut.



ADJUSTING NUT

PARKING BRAKE

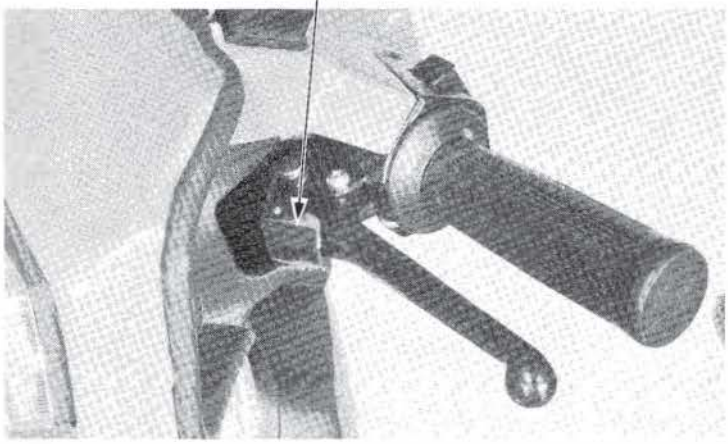
NOTE:

Parking brake inspection must be made after the rear brake is adjusted properly.

Apply the parking brake and check that the rear wheel is locked securely.

Squeeze the rear brake lever. The parking brake should release automatically.

PARKING BRAKE LEVER



BRAKE LIGHT SWITCH

Check that the brake light comes on when brake engagement begins. Replace the switch if the brake light does not come on at the proper time.

NOTE:

The brake light switches cannot be adjusted.

HEADLIGHT AIM

Adjust the headlight beam vertically by turning the vertical adjusting screw. Turn the adjusting screw clockwise to direct the beam down.

Adjust the headlight beam horizontally by turning the horizontal adjusting screw. Turn the adjusting screw clockwise to direct the beam toward the left side of the rider.

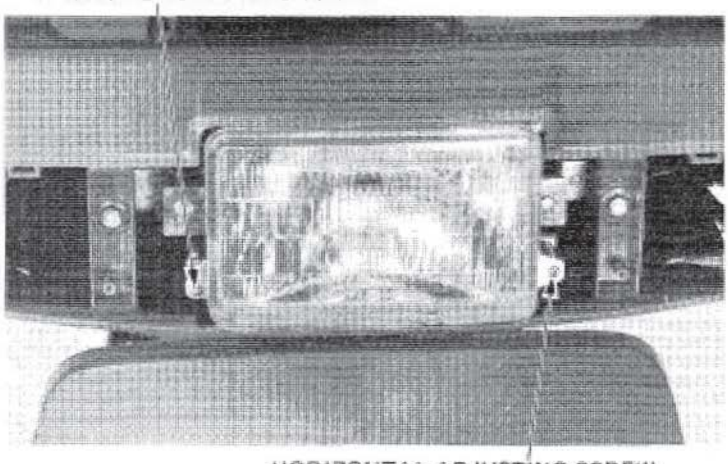
NOTE:

Adjust the headlight beam as specified by local laws and regulations.

WARNING

An improperly adjusted headlight may blind oncoming drivers, or it may fail to light the road for a safe distance.

VERTICAL ADJUSTING SCREW



HORIZONTAL ADJUSTING SCREW

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

SUSPENSION

WARNING

Do not ride a scooter with faulty suspension. Loose, worn or damaged suspension parts impair vehicle stability and control.

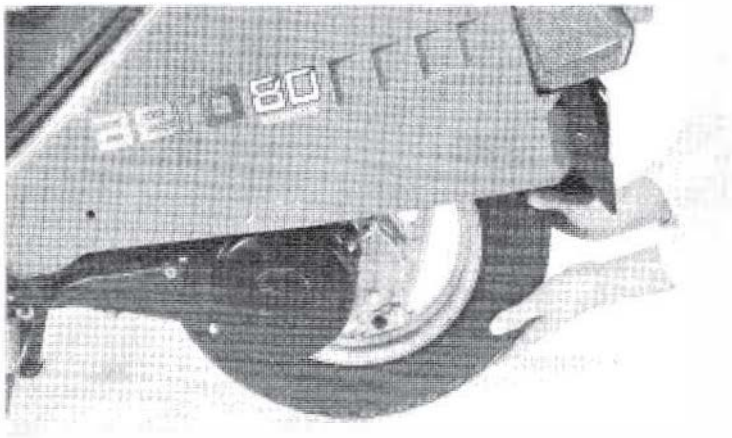
FRONT

Check the action of the front fork/shocks by compressing them several times.
Check the entire fork assembly for damage.
Replace damaged components which cannot be repaired.
Tighten all nuts and bolts.

REAR

Place the scooter on its center stand.
Move the rear wheel sideways with force to see if the engine hanger bushings are worn.
Replace the hanger bushings if there is any looseness.

Check the shock absorber for damage.
Tighten all rear suspension nuts and bolts.



NUTS, BOLTS, FASTENERS

Check that all chassis nuts and bolts are tightened to their correct torque values (Section 1) at the intervals shown in the Maintenance Schedule (Page 3-2).
Check all cotter pins, safety clips, hose clamps and cable stays.

WHEELS

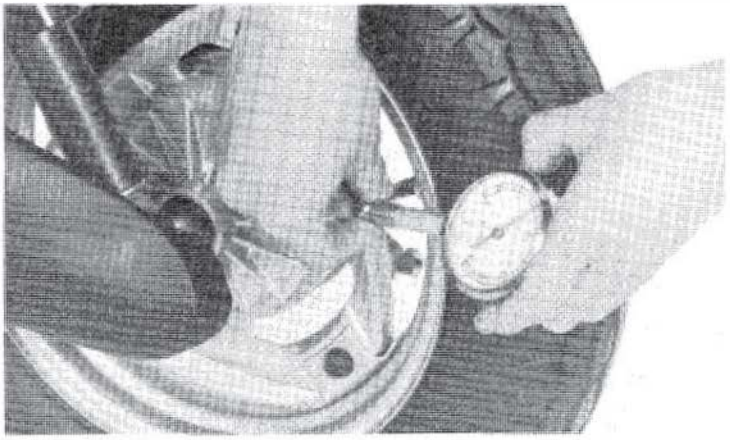
NOTE:

Tire pressure should be checked when tires are COLD.

Check the tires for cuts, imbedded nails, or other sharp objects.

RECOMMENDED TIRES AND PRESSURES:

		Front	Rear
Tire size		3.50-10-4PR	3.50-10-4PR
Cold tire pressure psi (kPa, kg/cm²)	Up to 90 kg (200 lbs) load	21 (150, 1.5)	24 (175, 1.75)
	90 kg (200 lbs) and up to vehicle capacity load	21 (150, 1.5)	36 (250, 2.5)

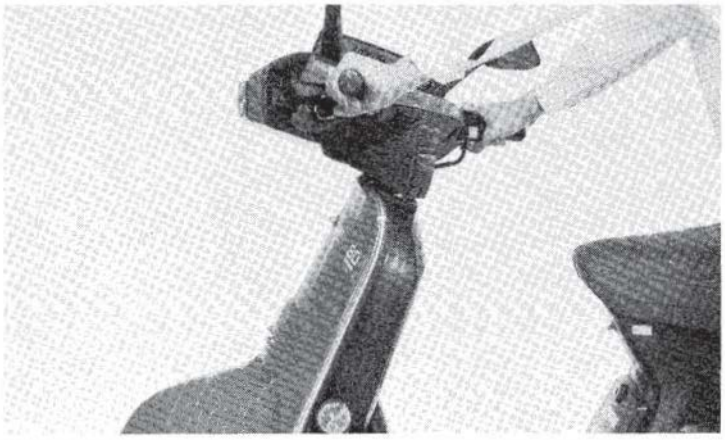


© HONDA MOTOR CO., LTD.

Check the front and rear wheels for trueness.

Measure the tread depth at the center of the tires. Replace the tires if the tread depth reaches the following limits:

Minimum tread depth:
Front: 0.8 mm (0.03 in)
Rear: 0.8 mm (0.03 in)



STEERING HEAD BEARINGS

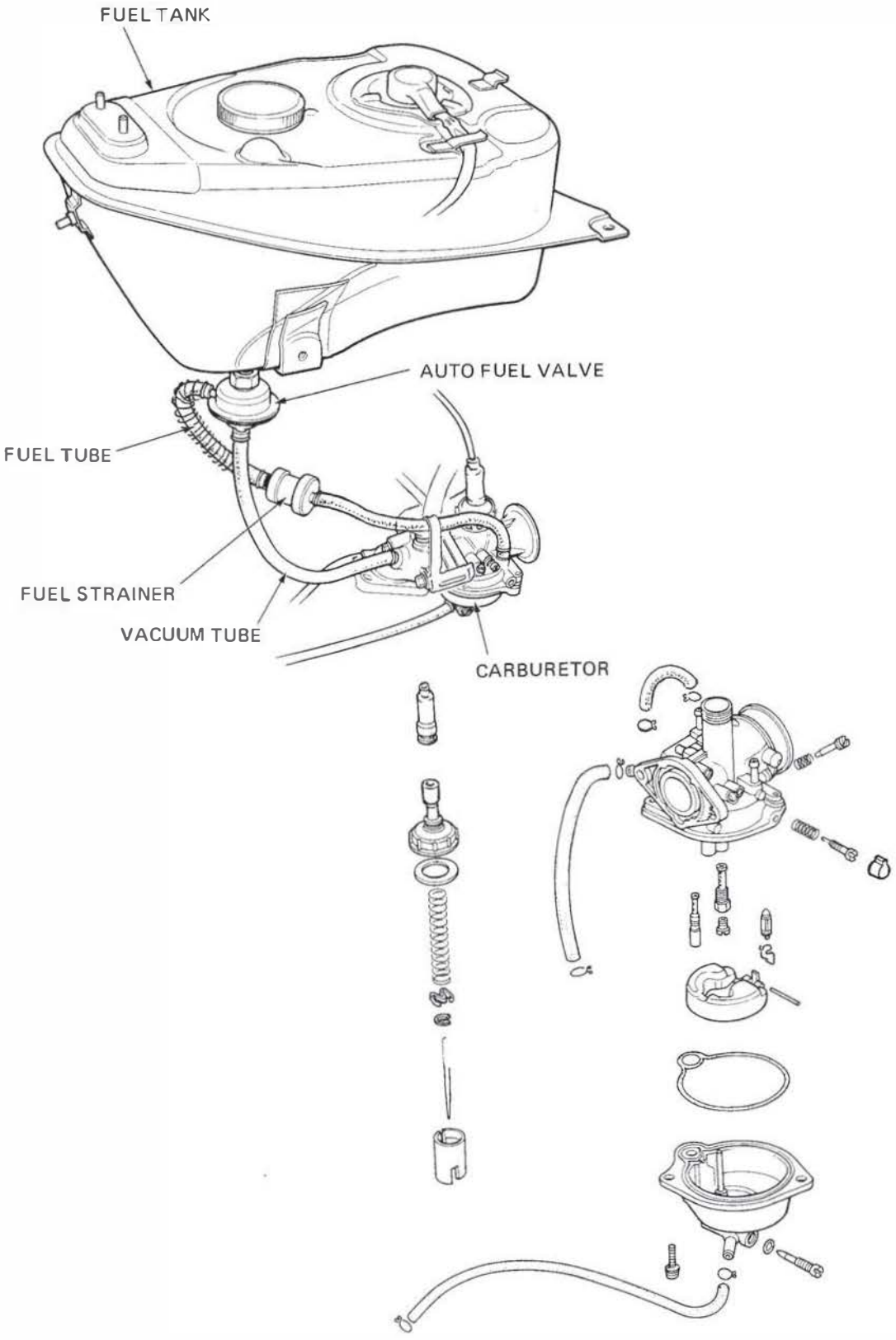
NOTE:

> Check that the control cables do not interfere with handlebar rotation.

Raise the front wheel off the ground and check that the handlebar rotates freely.

If the handlebar moves unevenly, binds, or has vertical movement, adjust the steering head bearing by turning the steering head adjusting nut (Page 12-24).

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

SERVICE INFORMATION

GENERAL

WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area. Do not smoke or allow flames or sparks in the work area.

- The fuel tank is equipped with an auto fuel valve that is turned OFF automatically when the engine is stopped.
- Use caution when working with gasoline. Always work in a well-ventilated area and away from sparks or flames.
- When disassembling fuel system parts, note the locations of the O-rings. Replace them with new ones during assembly.
- Bleed air from the oil outlet line whenever it is disconnected.

TOOLS

Special

Hand vacuum pump	ST-AH-260-MC7 (U.S.A. only)

Common

Float level gauge	07401–0010000

SPECIFICATIONS

Venturi dia.	16 mm (0.63 in)
Identification number	PB54D
Float level	8.5 mm (0.335 in)
Air screw opening	See page 4-10
Idle speed	1,800 ± 100 rpm
Throttle grip free play	2–6 mm (1/8–1/4 in)
Main jet	#88

TROUBLESHOOTING

Engine cranks but won't start
1. No fuel in tank
2. Fuel not reaching carburetor
3. Too much fuel getting to cylinder
4. Clogged air cleaner

Rich mixture
1. Faulty float valve
2. Float level too high
3. Carburetor jets clogged

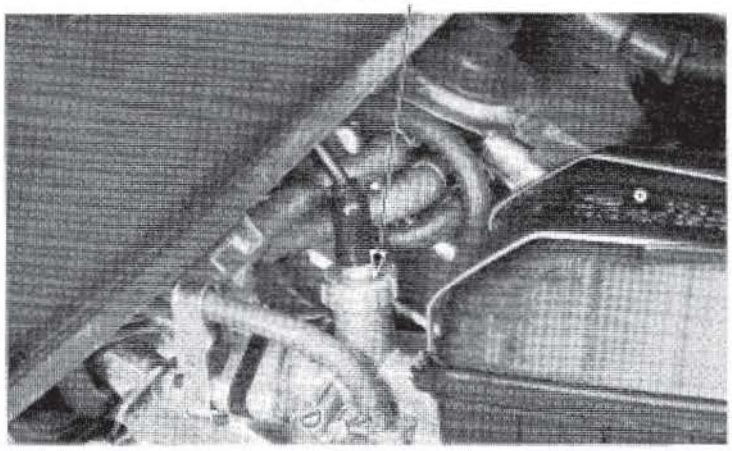
Engine idles roughly, stalls or runs poorly
1. Idle speed incorrect
2. No spark at plug
3. Loss of compression
4. Rich mixture
5. Lean mixture
6. Clogged air cleaner
7. Intake pipe leaking
8. Fuel contaminated

Lean mixture
1. Carburetor fuel jets clogged
2. Fuel cap vent clogged
3. Clogged fuel filter
4. Fuel line kinked or restricted
5. Faulty float valve
6. Float level too low
7. Clogged air vent tube
8. Clogged fuel strainer

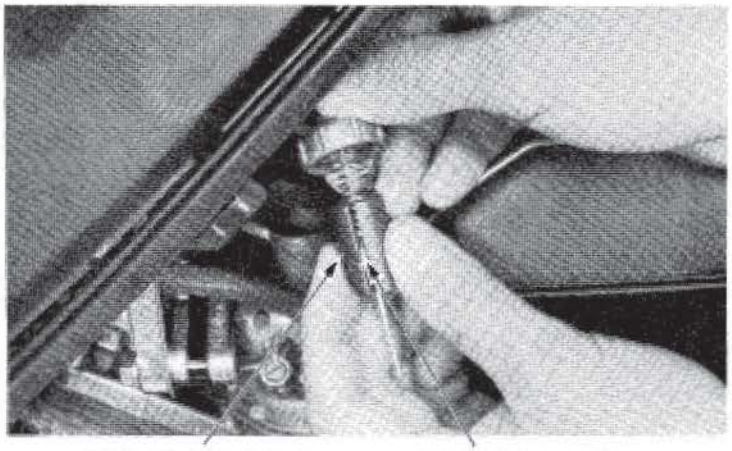
© HONDA MOTOR CO., LTD.

THROTTLE VALVE DISASSEMBLY

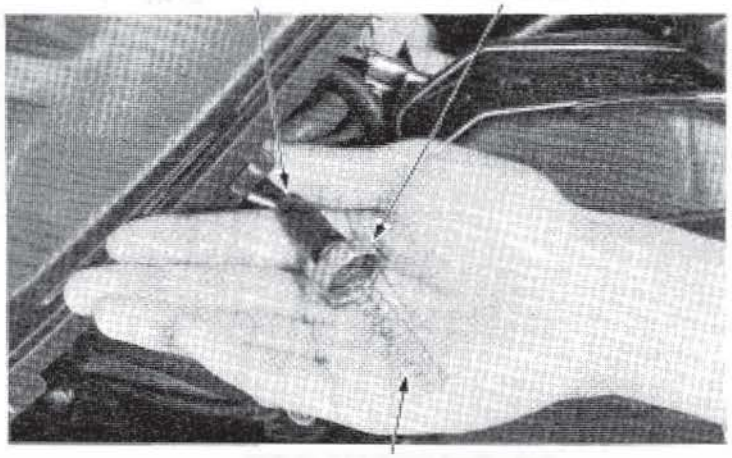
Remove the left frame cover.
Remove the carburetor top.



Disconnect the throttle cable from the throttle valve.



Remove the throttle valve spring, carburetor top and sealing cap.

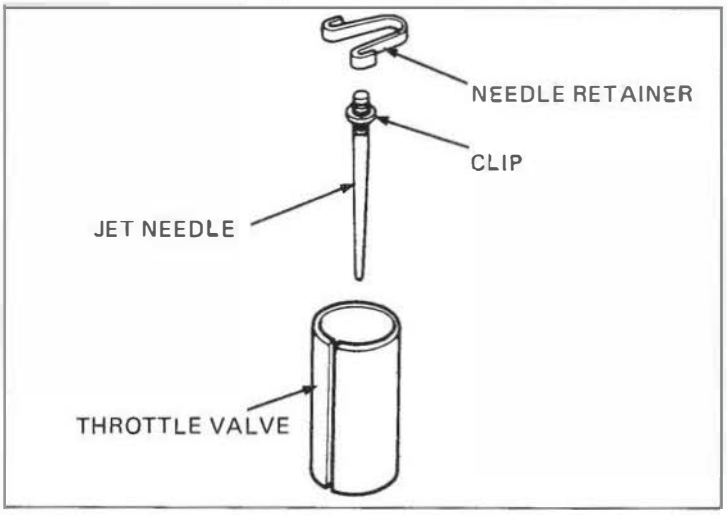


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Pry off the needle retainer and remove the jet needle.

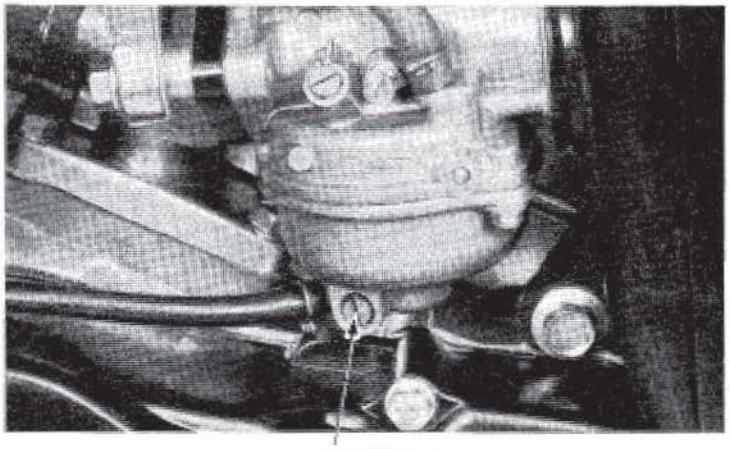
JET NEEDLE/THROTTLE VALVE INSPECTION

Check the jet needle and throttle valve for wear or damage.

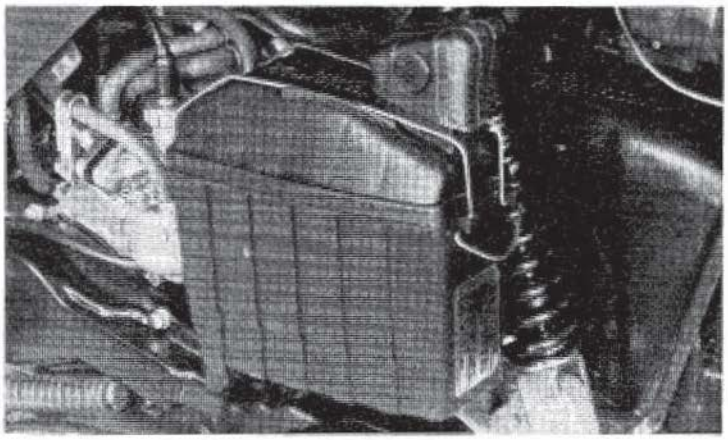


CARBURETOR REMOVAL

Remove the right and left frame covers.
Loosen the drain screw to drain fuel from the carburetor.



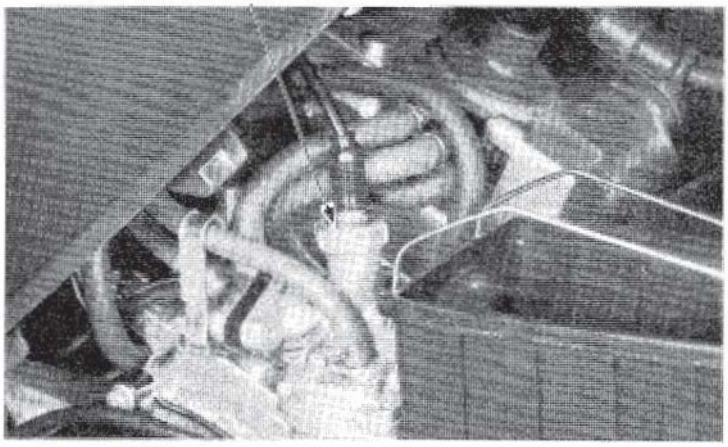
Remove the air cleaner element.



©HONDA MOTOR CO., LTD.

Remove the carburetor top and throttle valve.

CARBURETOR TOP



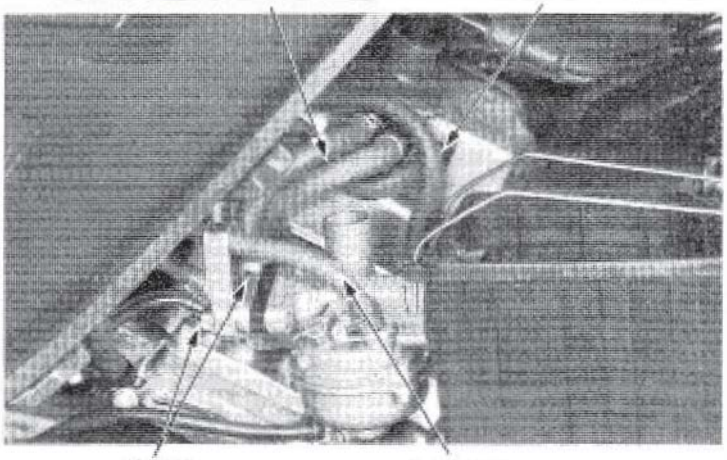
Disconnect the fuel tube from the carburetor.
Remove the carburetor attaching bolts.

NOTE:

> Remove the frame center cover for easy removal of the attaching bolts if necessary.

Disconnect the control box and bystarter tubes from the carburetor.

CHOKE CONTROL BOX TUBE BYSTARTER TUBE

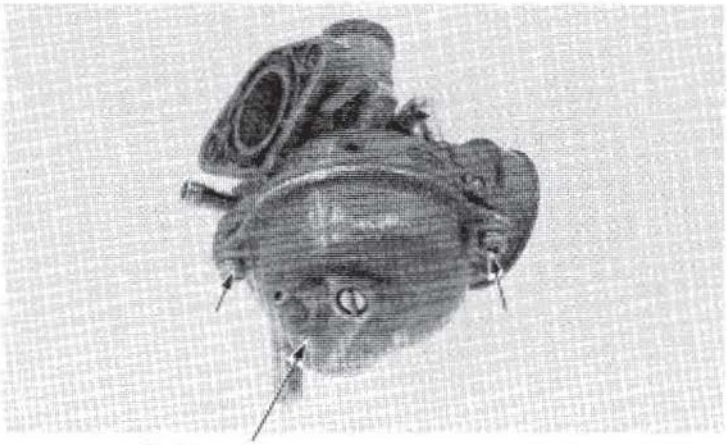


BOLTS FUEL TUBE

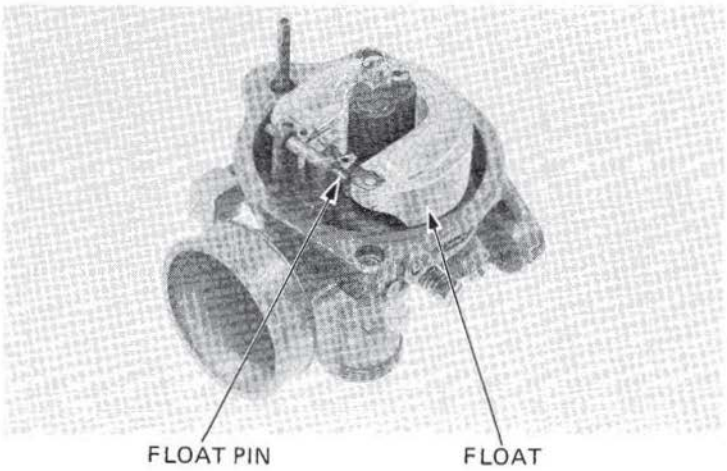
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

FLOAT/FLOAT VALVE/JETS DISASSEMBLY

Remove the float chamber from the carburetor body.

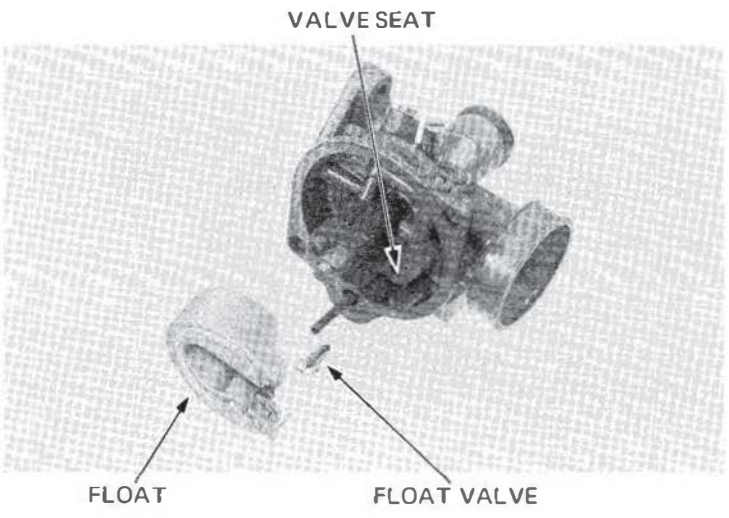


Remove the carburetor float and float valve by removing the pin.



FLOAT/FLOAT VALVE INSPECTION

Check the valve seat for wear or damage.
Check the float for deformation or fuel inside the float.



© HONDA MOTOR CO., LTD.

NOTE:

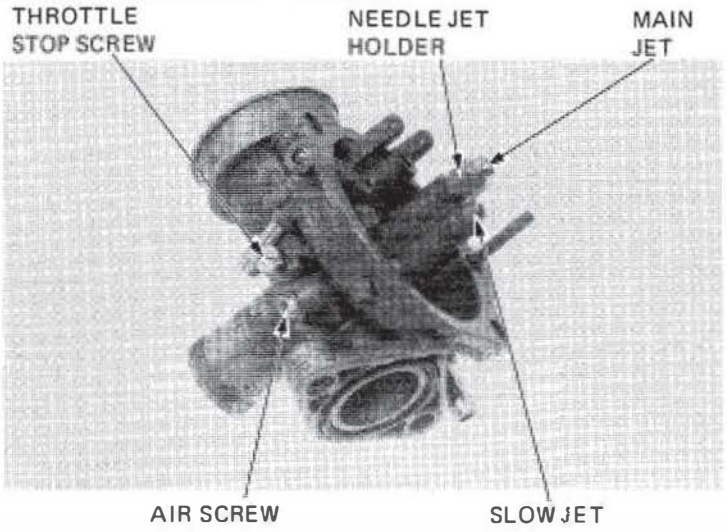
- The air screw is factory pre-set and should not be removed unless the carburetor is overhauled.
- The air screw limiter cap is factory installed to prevent air screw misadjustment.

Remove the throttle stop and air screws. Record the number of rotations until it seats, so it can be returned to its original positions.

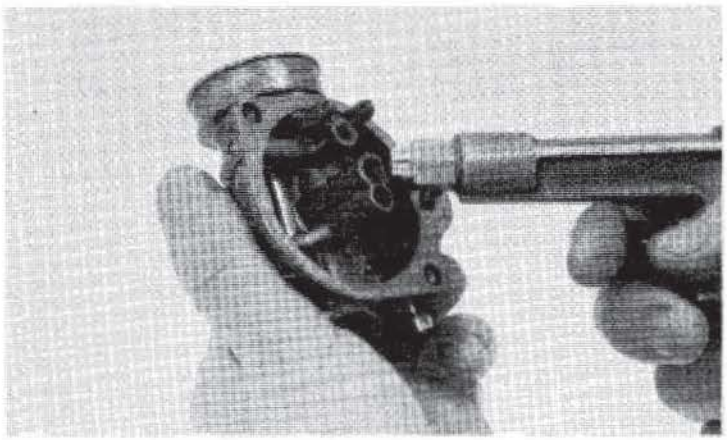
CAUTION:

Do not force the screw against its seat to prevent damage to the seat.

Remove the main jet, needle jet holder and slow jet.



Blow open all jets and body opening with compressed air.



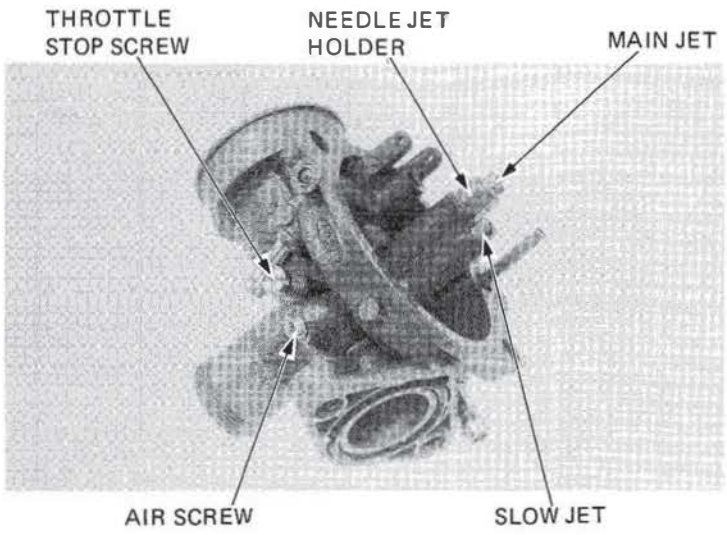
JETS/FLOAT VALVE/FLOAT ASSEMBLY

Install the slow jet, needle jet holder and main jet. Install the throttle stop and air screws and return them to their original position as noted during removal.

Perform air screw adjustment if a new air screw is installed (Page 4-10).

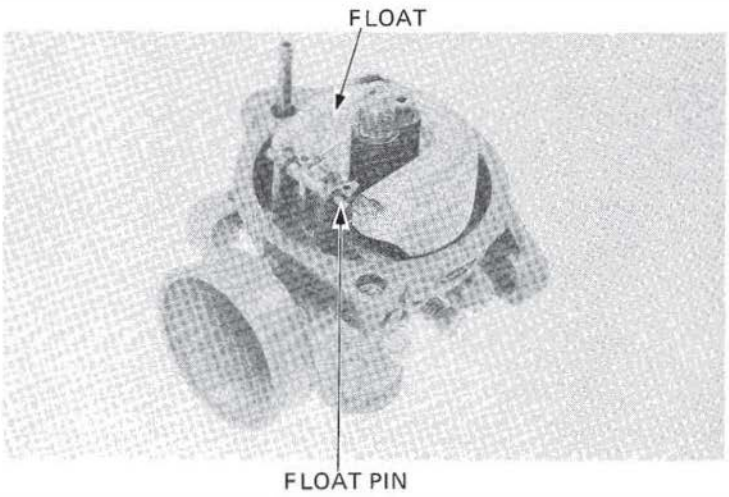
NOTE:

Do not install a new limiter cap on a new air screw head until after adjustment has been made.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Install the float valve, float and float pin.

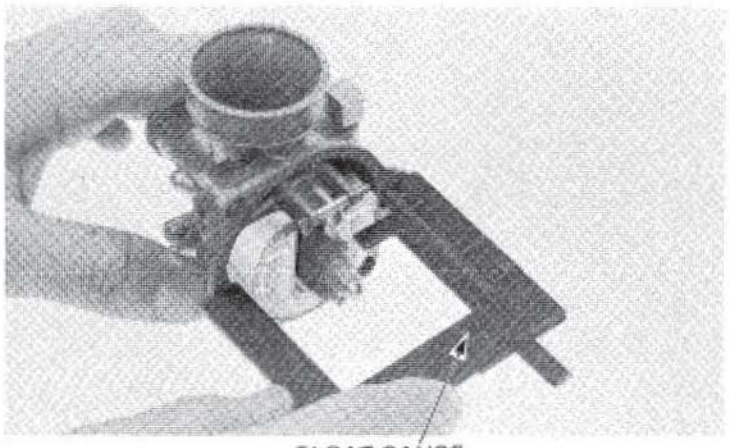


FLOAT LEVEL INSPECTION

Measure the float level with the float tip just contacting the float valve.

FLOAT LEVEL: 8.5 mm (0.335 in)

Adjust by carefully bending the float arm until the float tip.
Check operation of the float and install the float chamber.

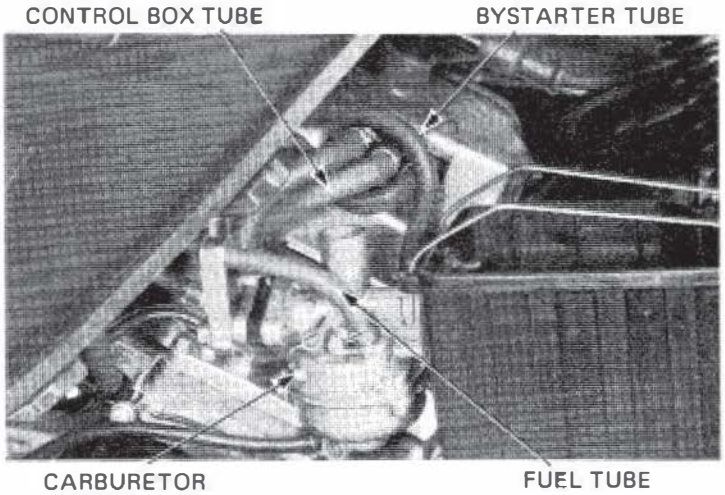


CARBURETOR INSTALLATION

CAUTION:

Do not allow foreign particles to enter the carburetor.

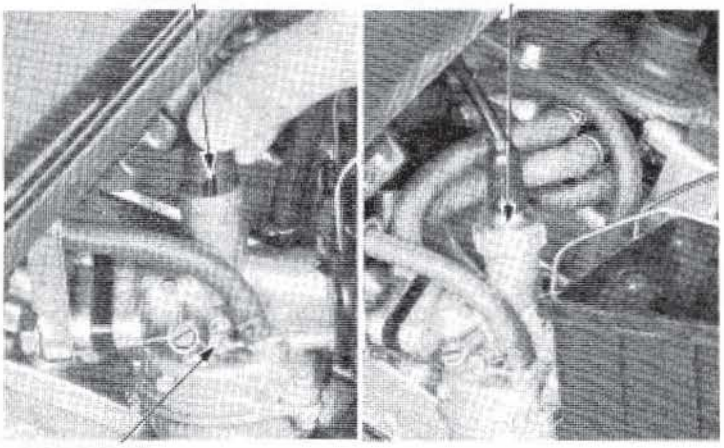
Connect the control box and bystarter tubes to the carburetor.
Install the carburetor and connect the fuel tube.
Install the frame center cover if it was removed.



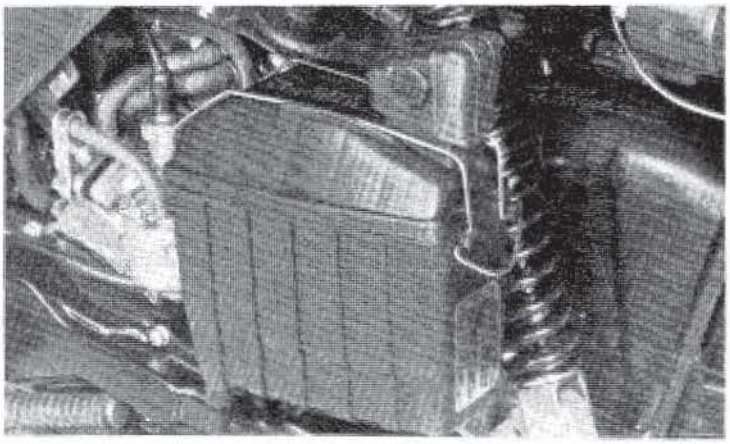
© HONDA MOTOR CO., LTD.

Install the throttle valve, aligning the groove in the throttle valve with the throttle stop screw.

Install the carburetor top.



Install the air cleaner element.



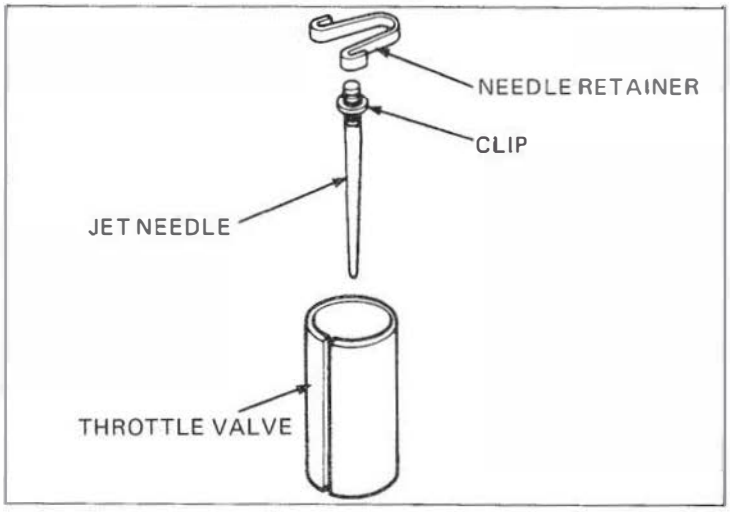
Install the right and left frame covers.
Perform the following adjustments and operation:

- Throttle cable free play adjustment (Page 3-4).
- Oil pump adjustment (Page 2-4).
- Idle speed adjustment (Page 3-7).

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

THROTTLE VALVE INSTALLATION

Install the jet needle on the throttle valve and secure with the needle retainer.
Assemble the seal cap, carburetor top and throttle spring.

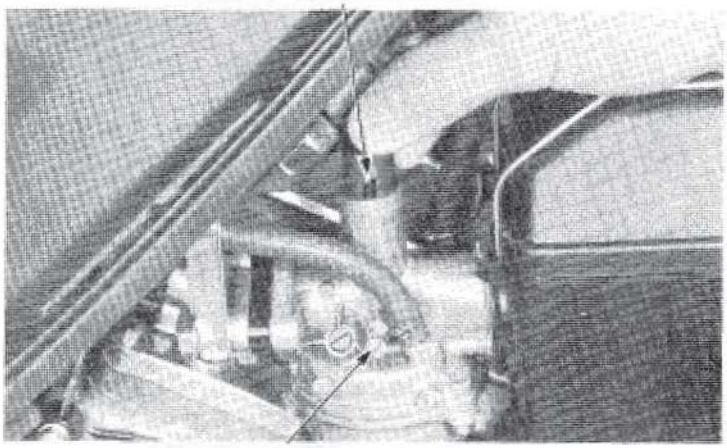


Connect the throttle cable to the throttle valve.
Slide the throttle valve into the carburetor body.

NOTE:

> Align the groove in the valve with the throttle stop screw on the carburetor body.

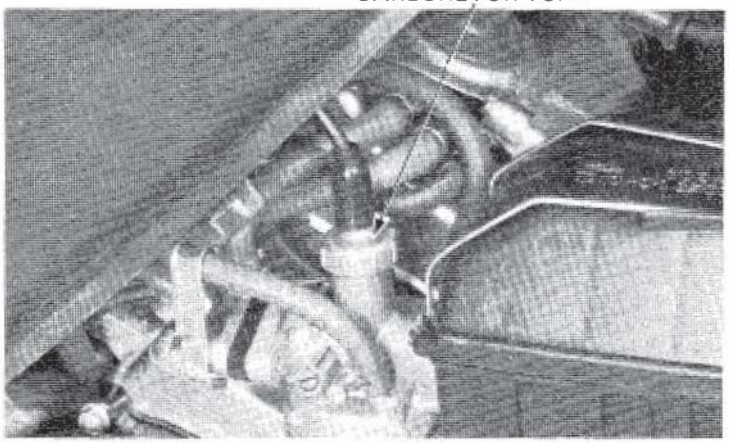
THROTTLE VALVEGROOVE



THROTTLE STOP SCREW

Tighten the carburetor top.
Install the left frame cover.
Adjust the throttle cable free play (Page 3-4).

CARBURETOR TOP



© HONDA MOTOR CO., LTD.

AIR SCREW

REMOVAL/INSTALLATION

NOTE:

> The air screw is factory pre-set and should not be removed unless the carburetor is overhauled.

Break the tab of the limiter cap with pliers.
Groove the end of the limiter cap with a hacksaw blade.

Turn the air screw in and carefully count the number of turns so it can be reinstalled in it original position. Then remove the air screw.

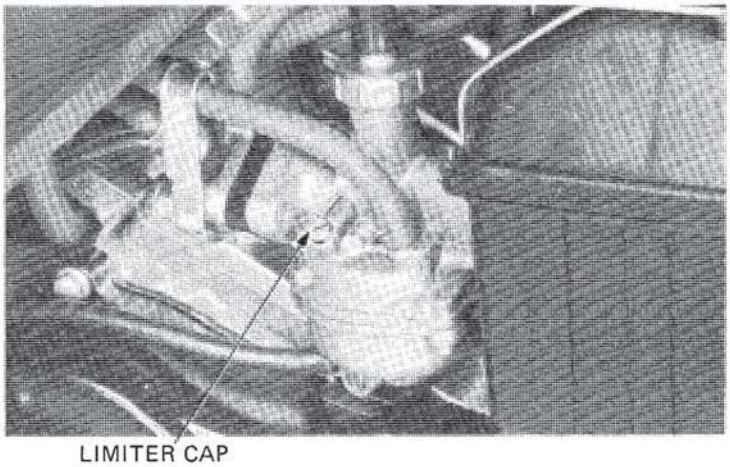
CAUTION:

> *Damage to air screw and seat can occur if the air screw is tightened against the seat.*

Inspect the air screw and replace it if it is worn or damaged.

Install the air screw and return it to its original position as noted during removal.

Perform air screw adjustment if a new screw is installed.
Install a new limiter cap (Page 4-11).



LIMITER CAP

ADJUSTMENT

NOTE:

> The air screw is factory pre-set and no adjustment is necessary unless the air screw is replaced.

Turn the air screw clockwise until it seats lightly and back it out to the specification given. This is an initial setting prior to the final air screw adjustment.

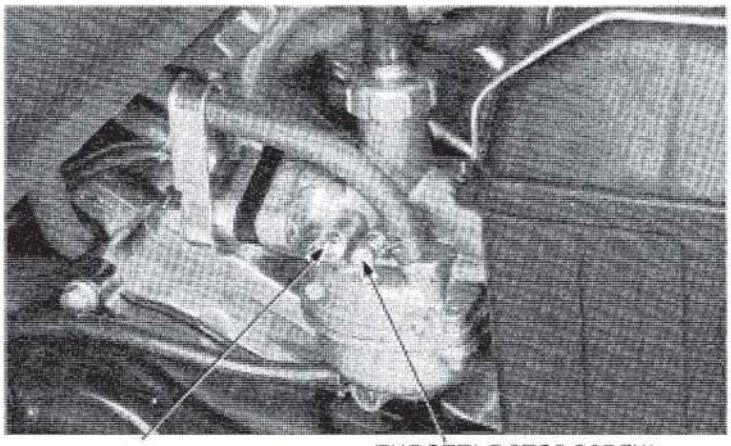
INITIAL OPENING: 1-1/2 turns out

CAUTION:

> *Damage to the air screw and seat will occur if the air screw is tightened against the seat.*

Warm the engine up to operating temperature.
Stop and go riding for 10 minutes is sufficient.
Connect a tachometer and adjust the idle speed with the throttle stop screw.

IDLE SPEED: 1,800 ± 100 rpm



AIR SCREW THROTTLE STOP SCREW

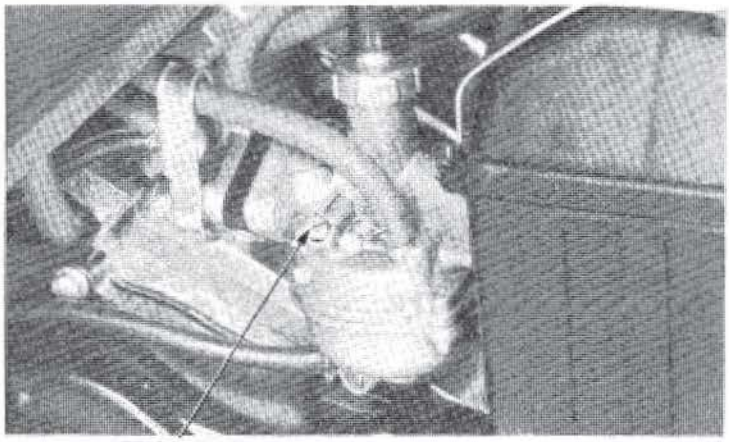
Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

Turn the air screw in or out to obtain the highest engine speed.
Readjust the idle speed to 1,800 ± 100 rpm, using the throttle stop screw.

LIMITER CAP INSTALLATION

If the air screw has been removed, a new limiter cap must be installed after air screw adjustment is completed.
After adjustment, cement the limiter cap over the air screw, using LOCTITE ® #601 or equivalent. The limiter cap should be placed against its stop, preventing further adjustment that would enrich the fuel mixture (limiter cap position permits counterclockwise rotation and prevents clockwise rotation).
NOTE:

> An air screw limiter cap must be installed. It prevents misadjustment that could cause poor performance and increase emissions.



LIMITER CAP

HIGH ALTITUDE ADJUSTMENT

For sustained high altitude operation (above 2,000 m/6,500 ft) install a #82 main jet and readjust idle speed.

Remove the carburetor from the engine and remove the float chamber.

Replace the standard main jet with the high altitude #82 main jet.

Assemble and install the carburetor.

Adjust idle speed to 1,800 ± 100 rpm, using the throttle stop screw.

CAUTION:

> *Sustained operation at altitudes lower than 1,500 m (5,000 ft) with the high altitude main jet installed may cause engine overheating and damage. For sustained operation below 1,500 m (5,000 ft), reinstall the standard main jet and readjust idle speed.*

	Standard 2,000 m (6,500 ft) max.	High altitude type 1,500 m (5,000 ft) min.
Main jet	#88	#82
Idle speed	1,800 ± 100 rpm	←
Air screw initial opening	Factory pre-set	←

Attach the vehicle Emission Control Information Update Label as shown.
NOTE:

> Do not attach the label to any part that can be easily removed from the vehicle.

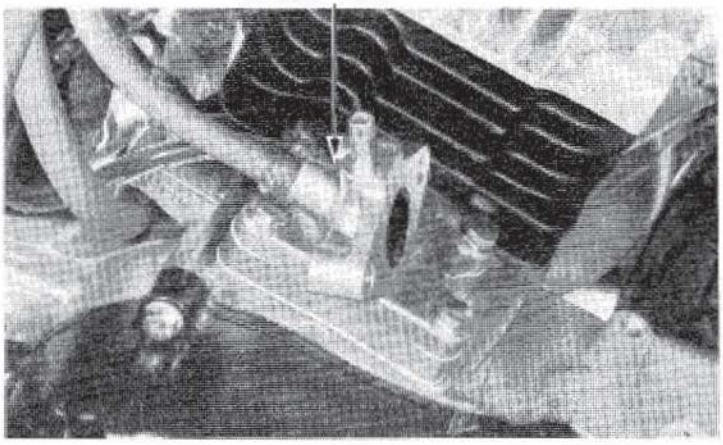
VEHICLE EMISSION CONTROL INFORMATION UPDATE LABEL

© HONDA MOTOR CO., LTD.

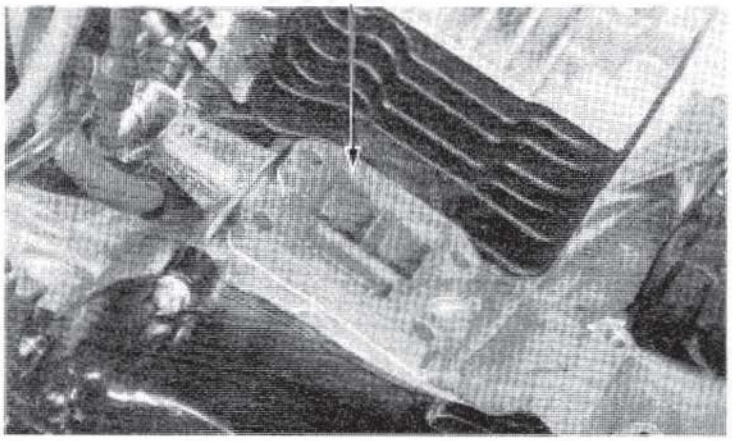
REED VALVE

REMOVAL

Remove the frame center cover.
Remove the carburetor (Page 4-3).
Remove the engine shrouds (Page 6-2).
Remove the intake pipe.



Remove the reed valve.

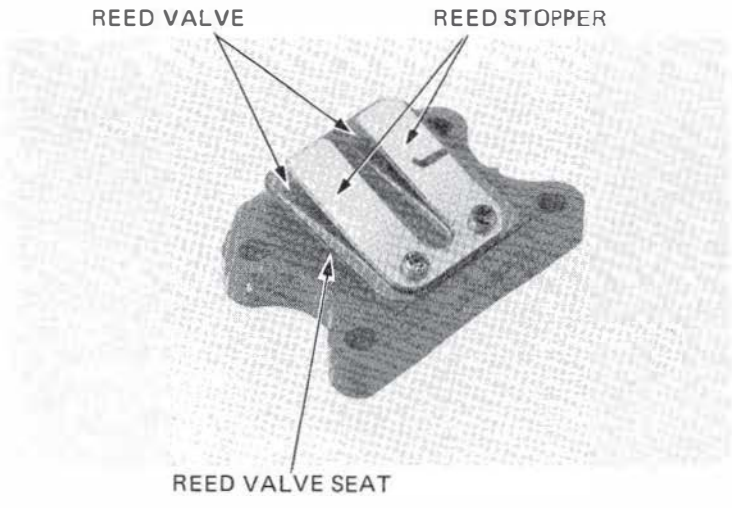


INSPECTION

Check the reed valve for damaged or weak reeds. Check the valve seat for cracks, damage or clearance between the seat and reed. Replace the valve if necessary.

CAUTION:

Do not disassemble or bend the reed stopper. To do so can cause loss of power and engine damage. If the stopper, reed or valve seat is faulty, replace them as a unit.



INSTALLATION

This installation sequence is essentially the reverse order of removal.
After installation, check for secondary leaks.

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

AUTO FUEL VALVE INSPECTION

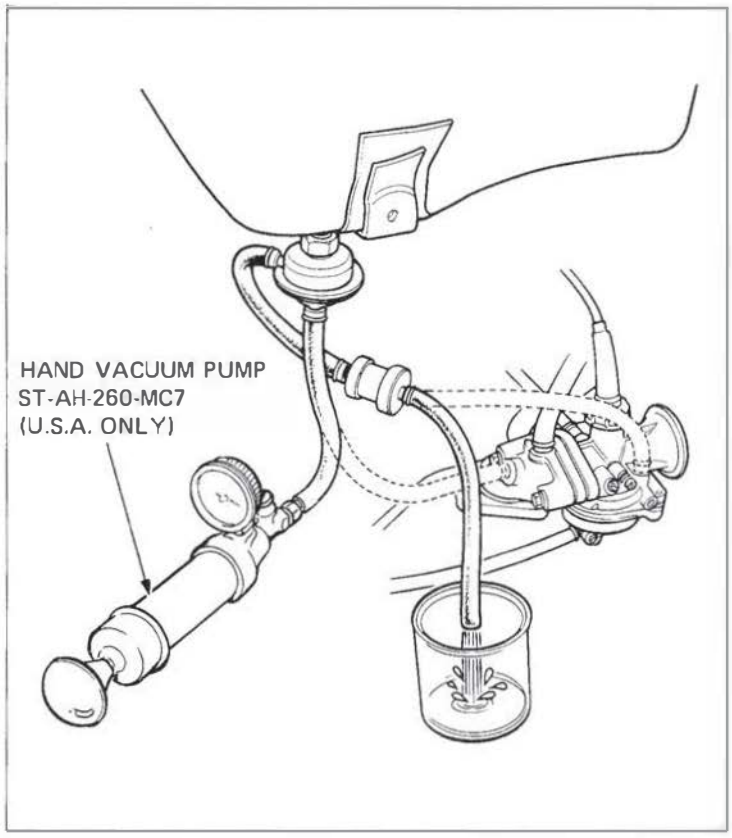
INSPECTION

WARNING

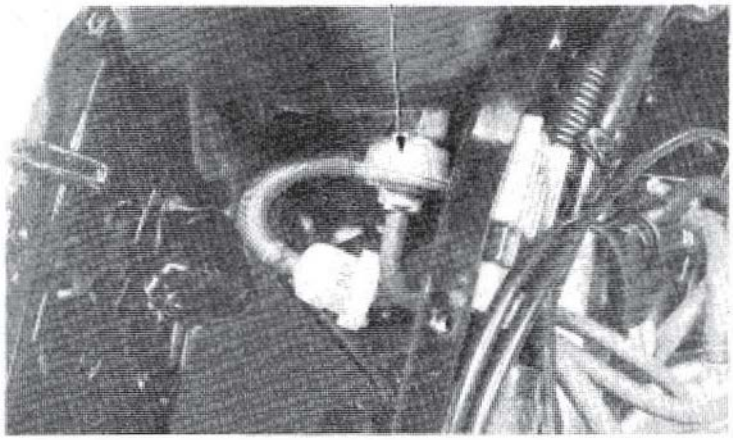
Gasoline is extremely flammable and is explosive under certain conditions. Perform this operation in a well ventilated area and do not smoke or allow sparks in the area.

1. With the engine stopped, disconnect the fuel line from the carburetor and check if fuel is flowing out of the fuel line.
   The fuel valve is normal if fuel ceases to flow out of the fuel line after the remaining fuel (5—10 cc) has been drained out of the fuel valve and fuel line thoroughly. Should fuel fail to stop flowing out of the fuel line, check the vacuum tube for blockage.

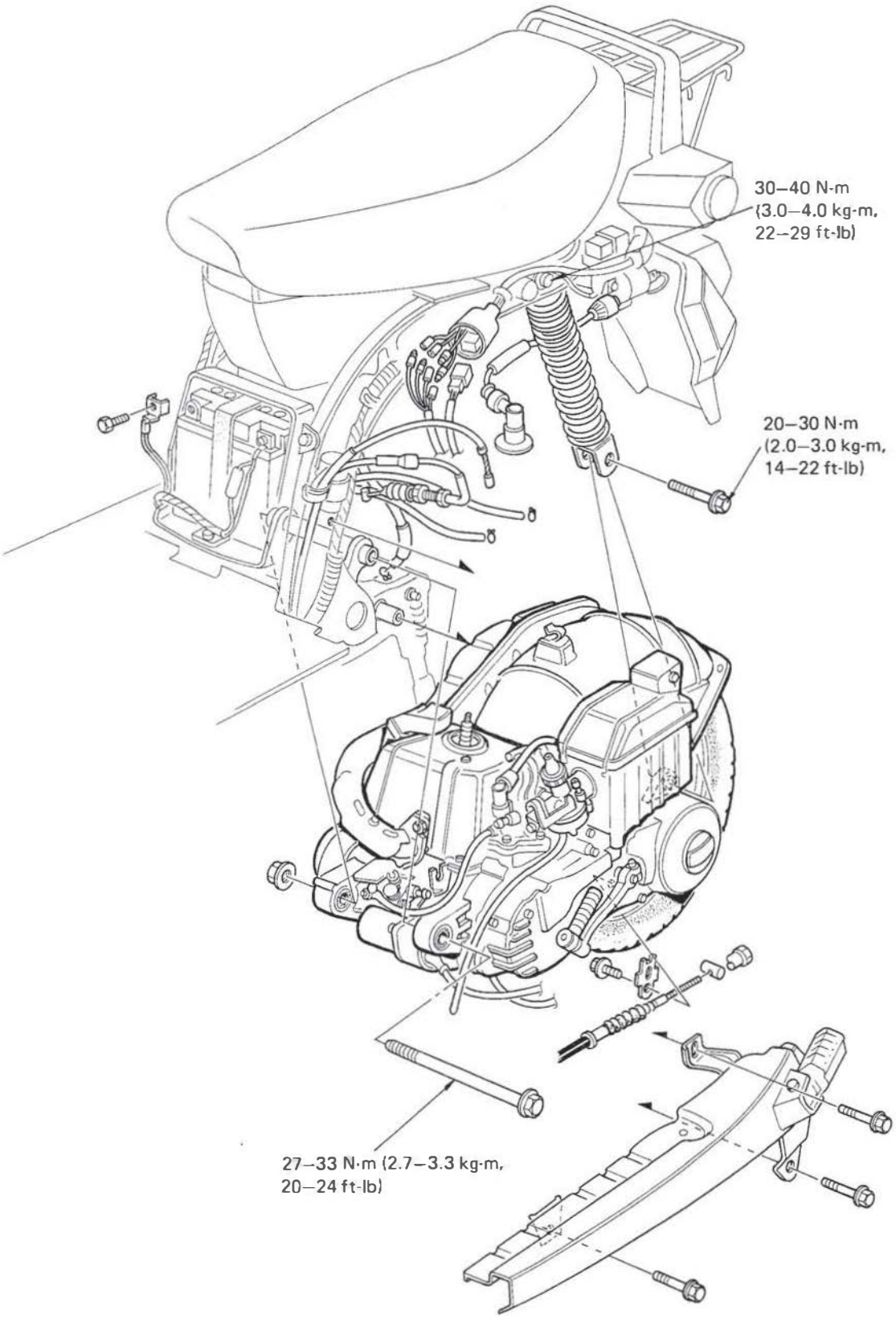
2. Disconnect the vacuum tube from the intake pipe and apply vacuum to the vacuum tube. The fuel valve is normal if fuel flows out of the fuel line when vacuum is applied. If fuel does not flow out of the fuel line when negative pressure is applied, do the following;
   - Clean the vacuum tube with compressed air.



AUTO FUEL VALVE



© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

5. ENGINE REMOVAL/INSTALLATION

SERVICE INFORMATION

GENERAL

Parts requiring engine removal for servicing:
- Oil pump
- Starter motor
- Crankshaft

SPECIFICATIONS

Engine weight: 18 kg (40 lbs)

TORQUE VALUES

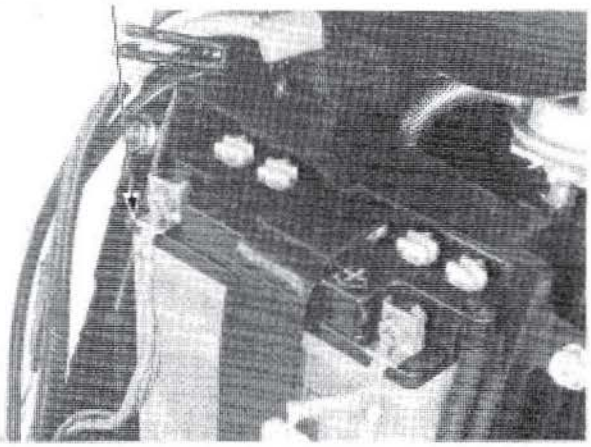
Engine mounting bolt	27–33 N·m (2.7–3.3 kg-m, 20–24 ft-lb)
Rear shock absorber upper mounting bolt	30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
Rear shock absorber lower mounting bolt	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)

©HONDA MOTOR CO., LTD.

ENGINE REMOVAL

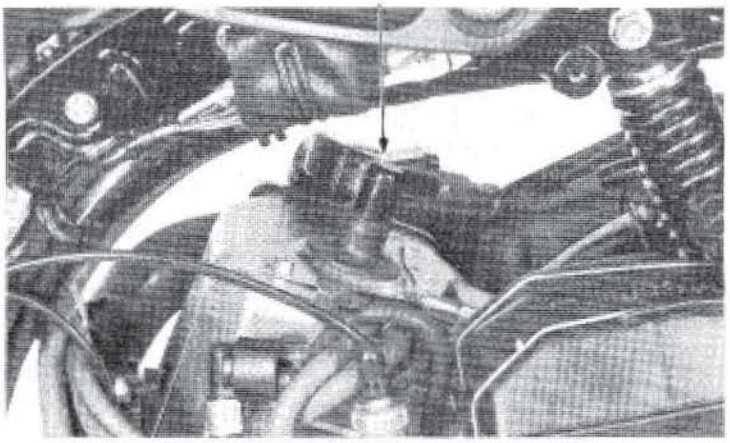
Remove the frame center cover.
Remove the right and left floor boards (Section 11).
Remove the battery cover and disconnect the battery ground cable from the battery negative terminal.

BATTERY GROUND CABLE



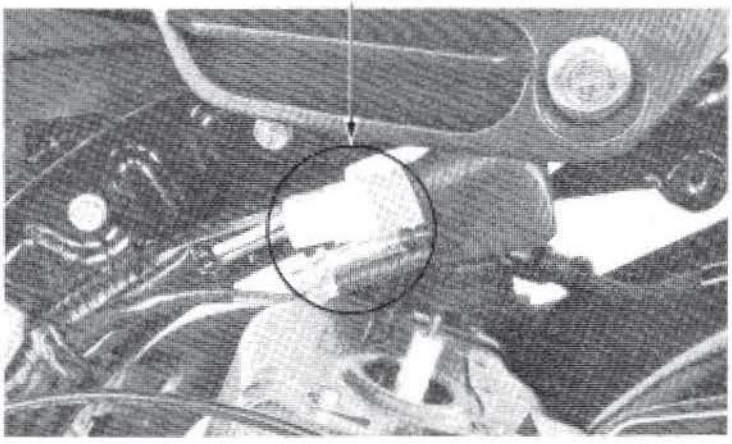
Remove the spark plug cap from the spark plug.

PLUG CAP



Remove the alternator and starter coupler and connectors.

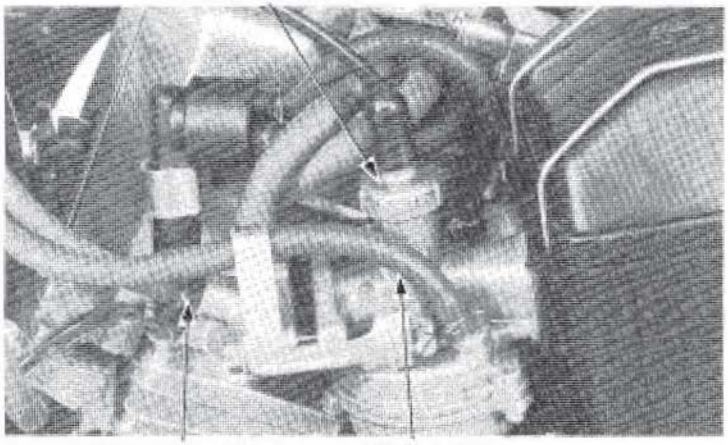
COUPLER AND CONNECTORS



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

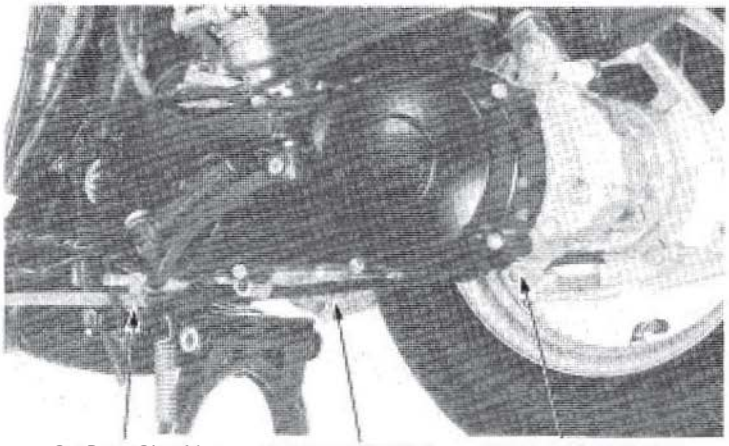
Remove the carburetor top.
Disconnect the vacuum tube and fuel line.

CARBURETOR TOP



VACUUM TUBE FUEL LINE

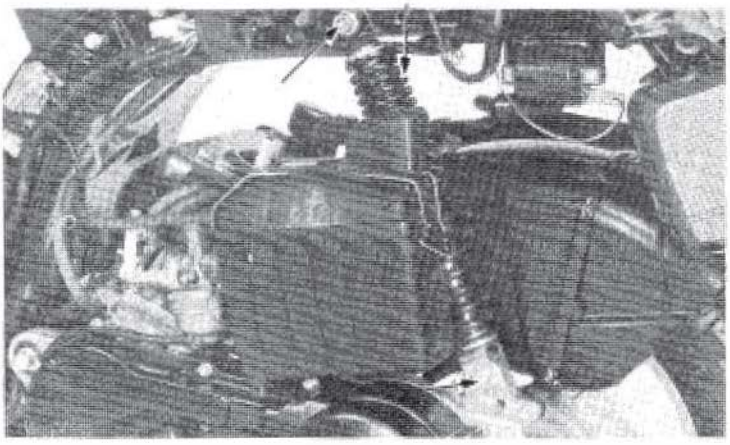
Disconnect the rear brake cable.



CABLE CLAMP BRAKE CABLE CABLE SET PLATE

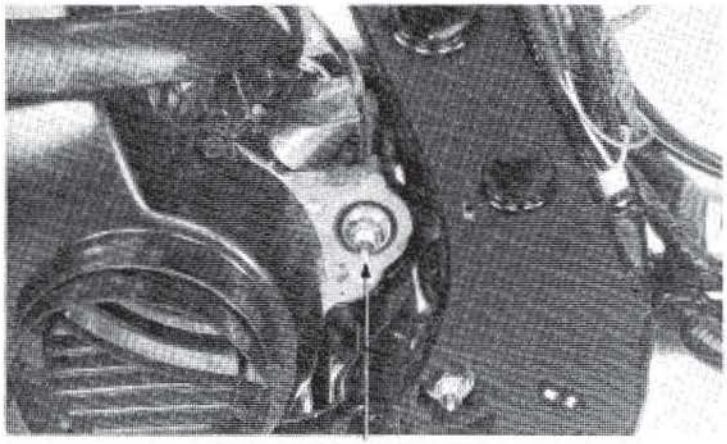
Remove the rear shock absorber.

REAR SHOCK ABSORBER



© HONDA MOTOR CO., LTD.

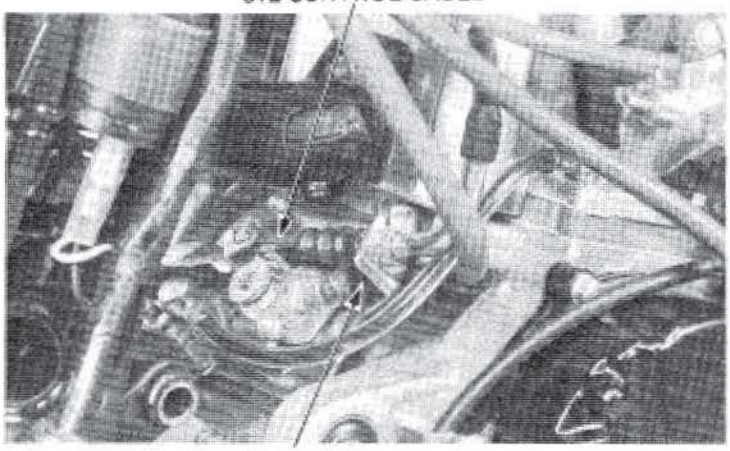
Unscrew the nut and remove the engine mounting bolt.
Slide the engine toward the rear.



ENGINE MOUNTING BOLT

Disconnect the oil control cable.
Disconnect the oil tube.
Remove the engine.

OIL CONTROL CABLE



OIL TUBE

ENGINE INSTALLATION

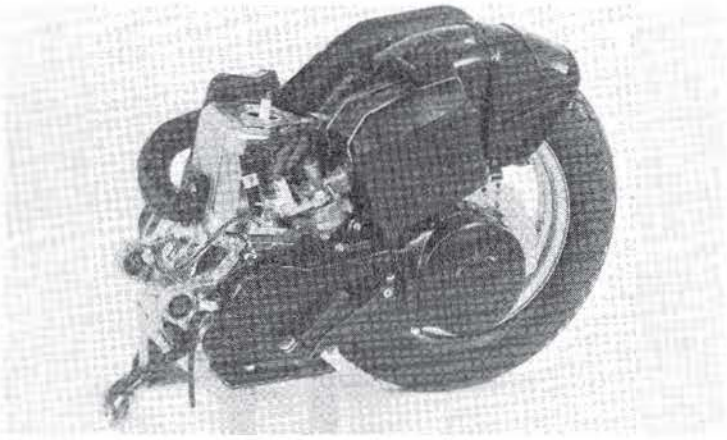
The installation sequence is essentially the reverse order of removal.
Tighten the engine mounting bolt and rear shock absorber upper and lower bolts to the specified torque values.

TORQUE:

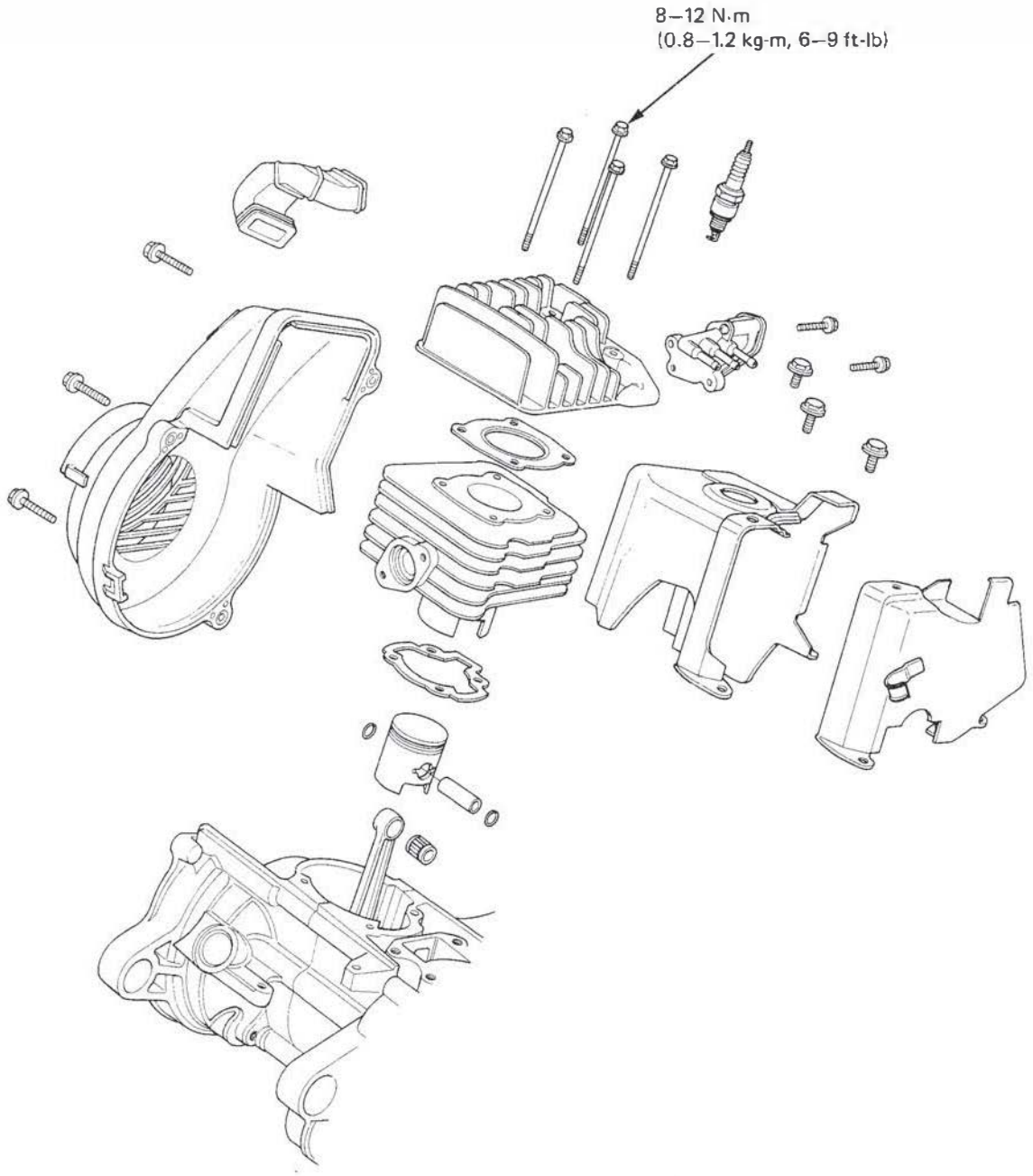
Engine mounting bolt:	**27–33 N·m (2.7–3.3 kg-m, 20–24 ft-lb)**
Rear shock absorber upper mounting bolt:	**30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)**
Rear shock absorber lower mounting bolt:	**20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)**

Perform the following inspections and adjustments after installation:

- Wire and cable routing (Page 1-8, 1-9)
- Throttle cable (Page 3-4)
- Oil control cable (Page 2-4)
- Oil pump bleeding/priming (Page 2-3)
- Rear brake adjustment (Page 3-9)



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

6. CYLINDER HEAD/CYLINDER/PISTON

SERVICE INFORMATION

GENERAL

- All cylinder head, cylinder and piston maintenance and inspection can be done with the engine installed.
- Before disassembly, clean the engine to prevent dirt and dust from entering the cylinder and crankcase.
- Remove all gasket material from the mating surfaces of the cylinder head, cylinder and crankcase.
- Use caution when disassembling and assembling the cylinder head, cylinder and piston to avoid damaging them.
- Clean all disassembled parts thoroughly before inspection. Coat all sliding surfaces with clean motor oil before assembly.

SPECIFICATIONS

ITEM		STANDARD	SERVICE LIMIT
Cylinder head	Warpage	———	0.10 mm (0.004 in)
Piston	Piston O.D.	47.965–47.975 mm (1.8884–1.8888 in)	47.900 mm (1.8858 in)
	Cylinder-to-piston clearance	0.035–0.050 mm (0.0013–0.0020 in)	0.100 mm (0.0039 in)
	Piston pin bore	12.002–12.008 mm (0.4725–0.4728 in)	12.025 mm (0.4734 in)
	Piston pin O.D.	11.994–12.000 mm (0.4722–0.4724 in)	11.980 mm (0.4717 in)
	Piston-to-piston pin clearance	0.002–0.012 mm (0.0001–0.0005 in)	0.030 mm (0.0012 in)
	Piston ring end gap (top/second)	0.15–0.35 mm (0.006–0.014 in)	0.60 mm (0.024 in)
	Connecting rod small end I.D.	17.005–17.017 mm (0.6695–0.6700 in)	17.025 mm (0.6703 in)
Cylinder	I.D.	48.000–48.010 mm (1.8898–1.8902 in)	48.050 mm (1.8917 in)

TORQUE VALUE

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

TROUBLESHOOTING

Compression too low, hard starting or poor performance at low speed
1. Leaking cylinder head gasket
2. Loose spark plug
3. Worn, stuck or broken piston rings
4. Worn or damaged cylinder and piston
5. Faulty reed valve

Compression too high, overheating or knocking
1. Excessive carbon build-up in cylinder or on piston top

Abnormal noise – piston
1. Worn cylinder and piston
2. Worn piston pin or piston pin hole
3. Worn connecting rod small end bearing

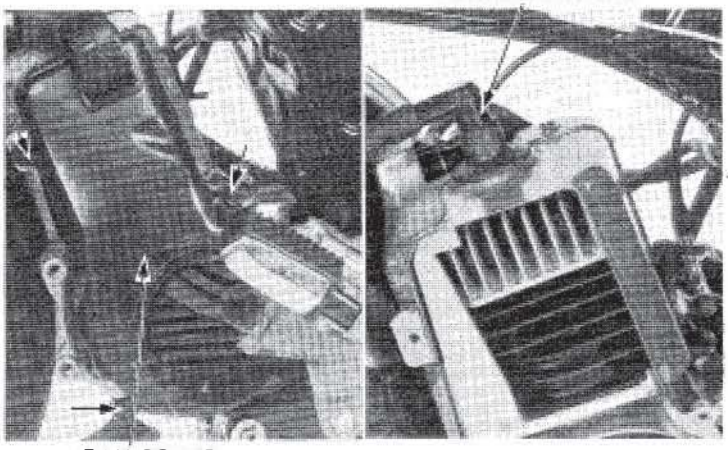
Abnormal noise – piston rings
1. Worn, stuck or broken piston rings
2. Worn or damaged cylinder

©HONDA MOTOR CO., LTD.

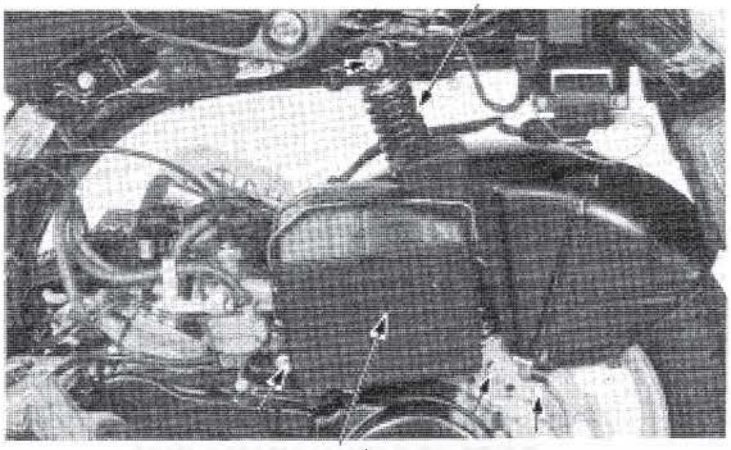
CYLINDER HEAD

CYLINDER HEAD REMOVAL

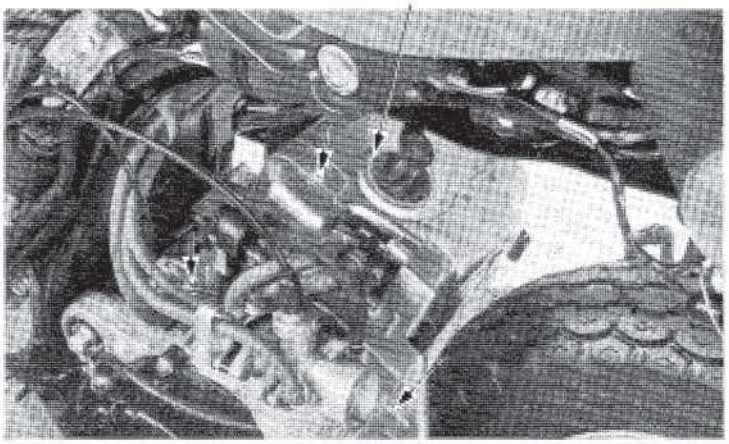
Remove the right floor board (Section 11).
Remove the exhaust muffler (Page 13-2).
Remove the cooling fan cover.
Remove the spark plug cap and spark plug.



Remove the rear shock absorber.
Remove the air cleaner case/rear fender.

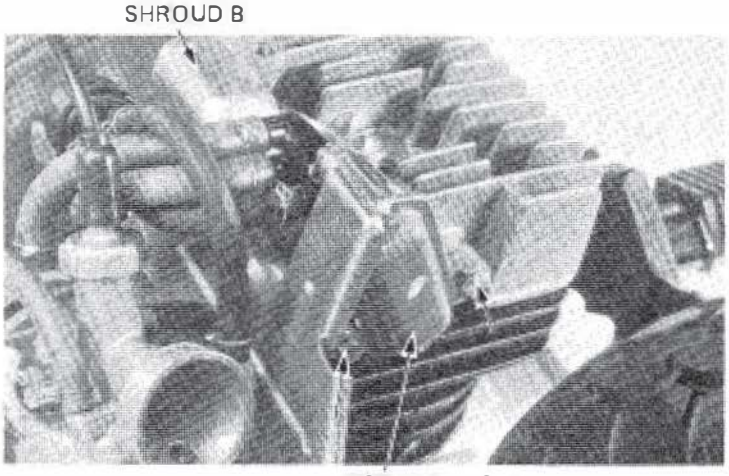


Remove engine shroud A.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

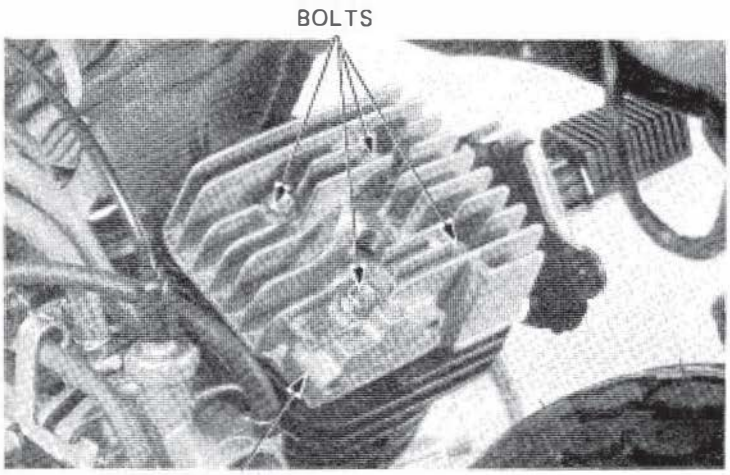
Remove the bolts attaching the control box and remove the control box.
Remove engine shroud B.



Remove the four cylinder head attaching bolts and remove the cylinder head.

NOTE:

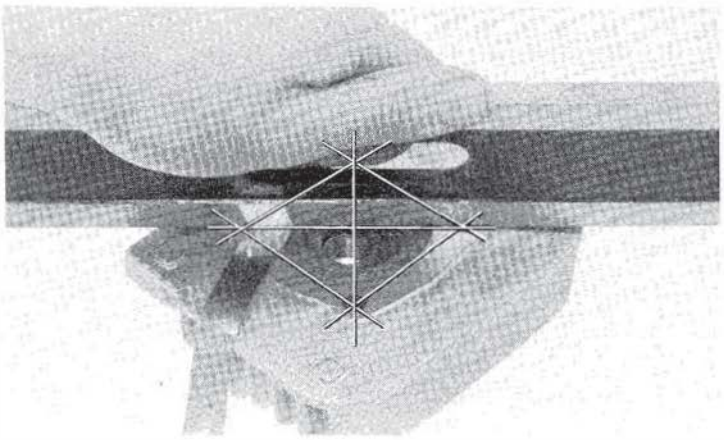
> Loosen the bolts in a criss-cross pattern in 2-3 steps to prevent distorted head.



CYLINDER HEAD INSPECTION

Check the cylinder head for warpage with a straight edge and a feeler gauge in the directions shown.

SERVICE LIMIT: 0.10 mm (0.004 in)



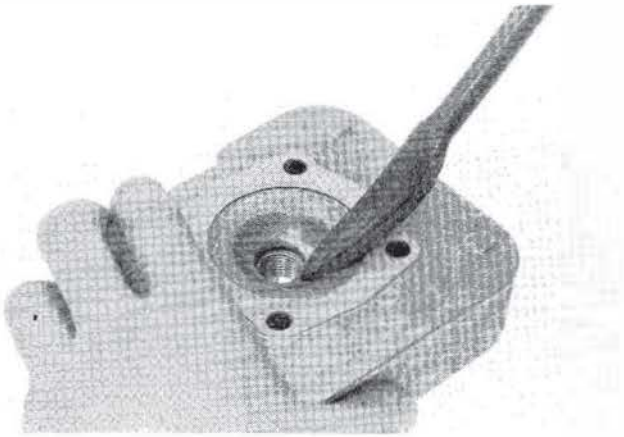
© HONDA MOTOR CO., LTD.

DECARBONIZING COMBUSTION CHAMBER

Remove the carbon build-up from the combustion chamber using a scraper as shown.

NOTE:

Do not scratch the combustion chamber wall and cylinder mating surface.



CYLINDER/PISTON

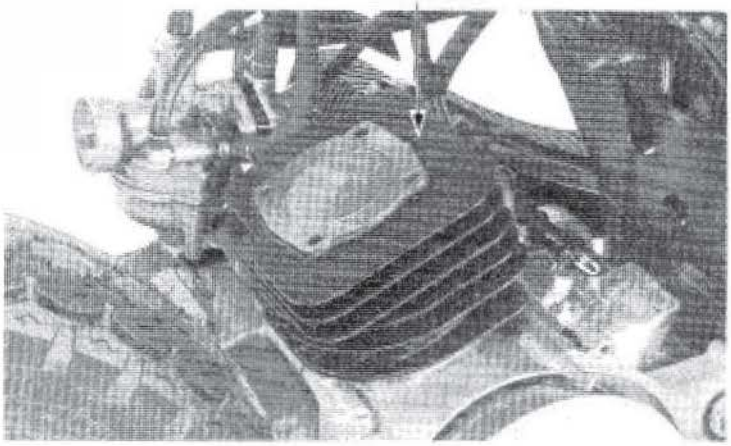
CYLINDER REMOVAL

Pull the cylinder up and off being careful not to let the piston get damaged.

CAUTION:

Do not pry between the cylinder and crankcase or strike the fins.

CYLINDER



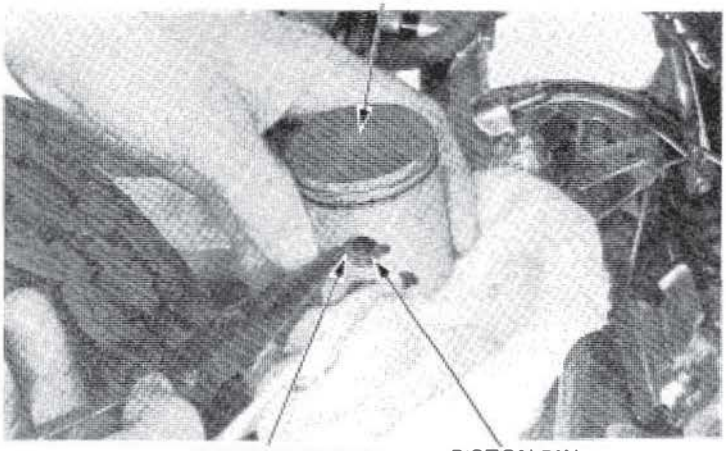
Place a shop towel into the crankcase around the piston.

Remove one piston pin clip and press the piston pin out of the piston.

NOTE:

- Do not damage or scratch the piston.
- Do not apply side force to the connecting rod.
- Do not let the clip fall into the crankcase.

PISTON



PISTON PIN CLIP PISTON PIN

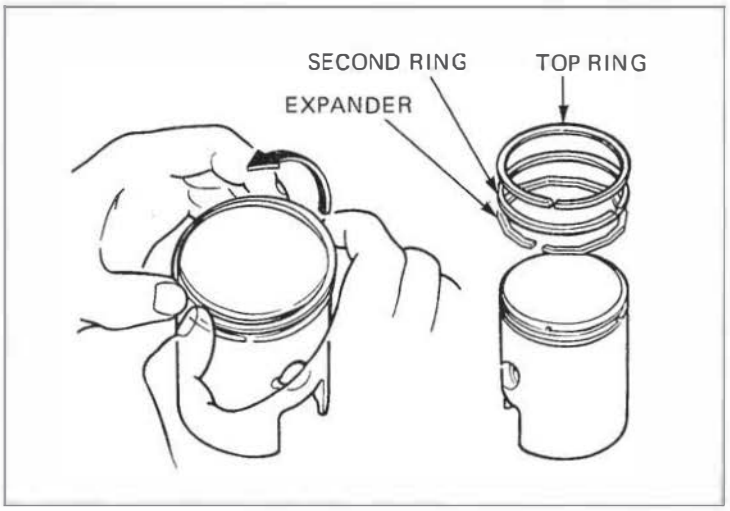
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Remove the piston rings.

NOTE:

Spread each piston ring and remove by lifting it up at a point just opposite the gap.

Remove the expander.

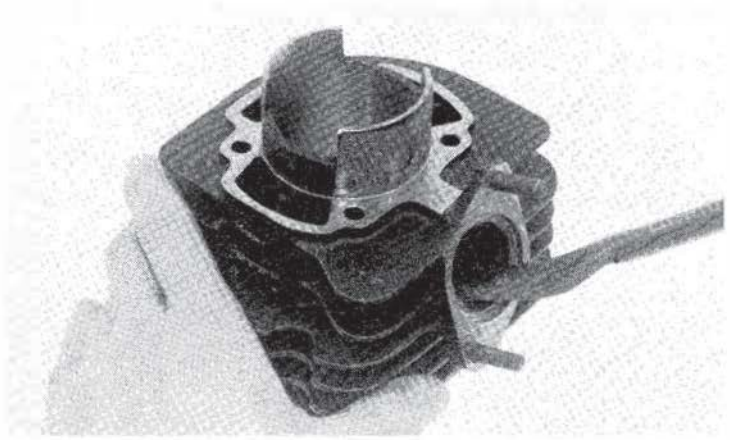


CYLINDER/PISTON INSPECTION

Check the cylinder and piston for wear or damage. Clean carbon deposits from the cylinder exhaust port area and piston as shown.

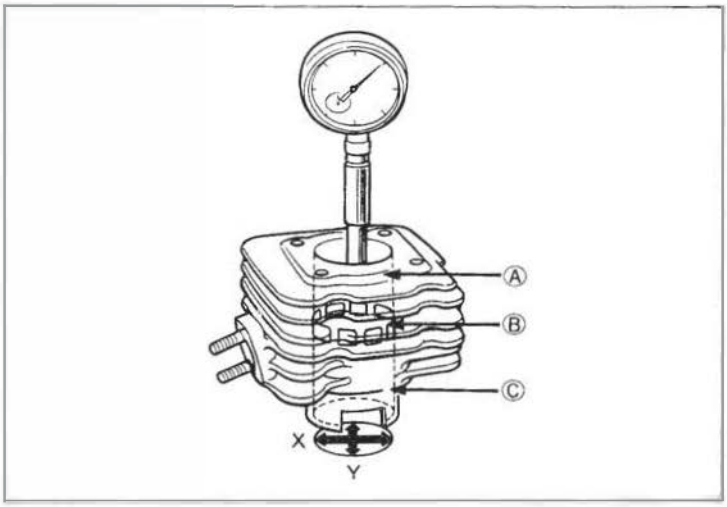
CAUTION:

Do not scratch or score the cylinder and piston.



Inspect the cylinder bore for wear at three levels in X and Y directions. Use the largest measurement to determine the cylinder wear.

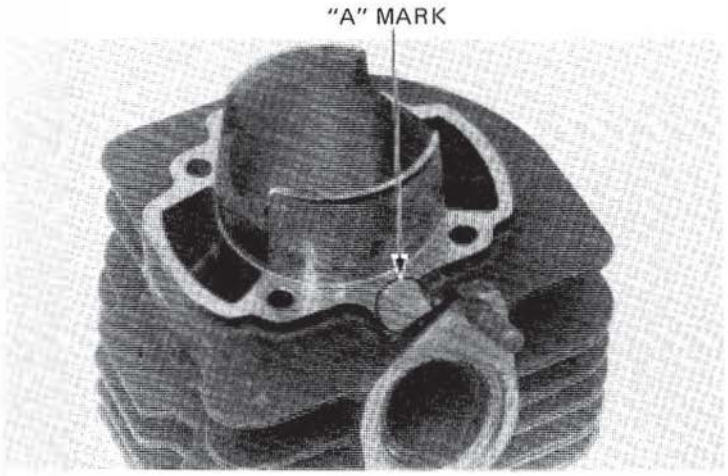
SERVICE LIMIT: 48.050 mm (1.8917 in)



©HONDA MOTOR CO., LTD.

CAUTION:

The cylinder may or may not have an "A" mark on its crankcase mating surface as shown. When the cylinder is replaced, replace it with a similar one, to match the crankcase.

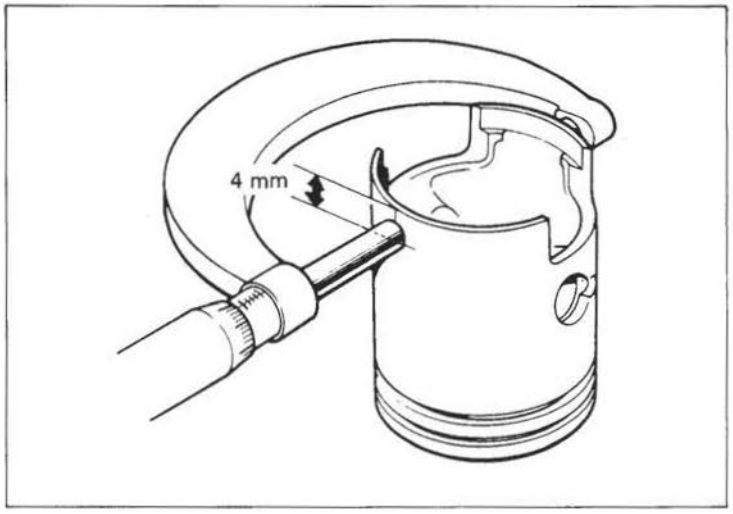


Measure the piston O.D. at a point 4 mm from the bottom of the skirt.

SERVICE LIMIT: 47.900 mm (1.8858 in)

Calculate the piston-to-cylinder clearance.

SERVICE LIMIT: 0.100 mm (0.0039 in)

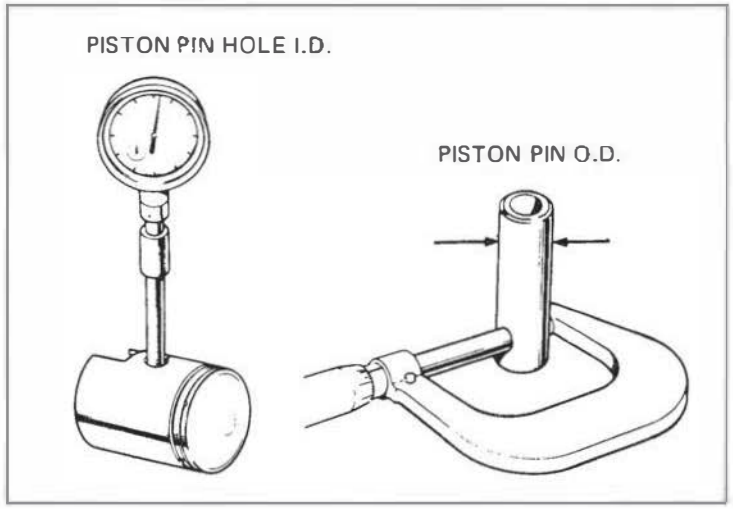


Measure the piston pin hole I.D.

SERVICE LIMIT: 12.025 mm (0.4734 in)

Measure the piston pin O.D.

SERVICE LIMIT: 11.980 mm (0.4717 in)



© HONDA MOTOR CO., LTD.

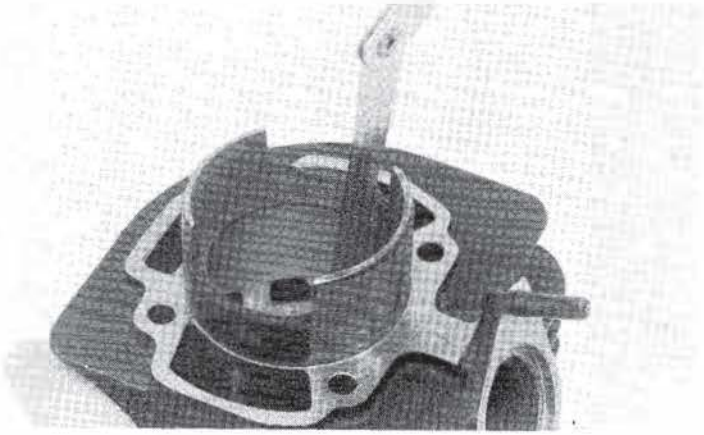
PISTON RING INSPECTION

Measure each piston ring end gap.

SERVICE LIMIT: 0.60 mm (0.024 in)

NOTE:

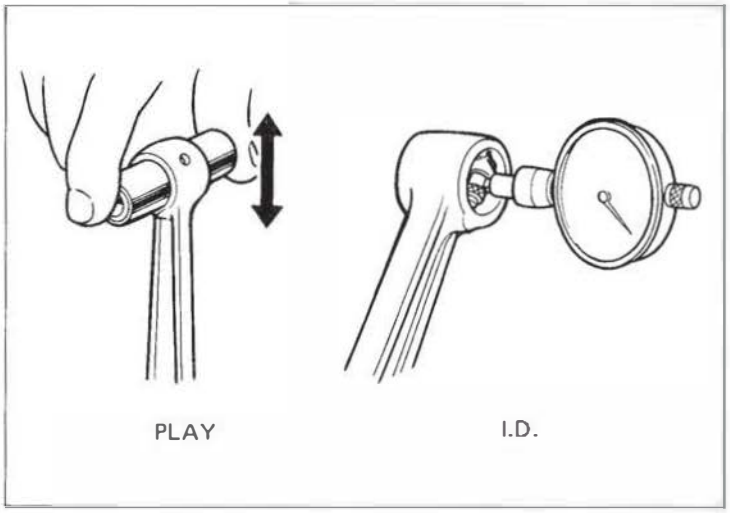
> Use the piston to set each ring squarely in the cylinder.



CONNECTING ROD INSPECTION

Install the bearing and piston pin in the connecting rod small end and check for excessive play.
Measure the connecting rod small end I.D.

SERVICE LIMIT: 17.025 mm (0.6703 in)



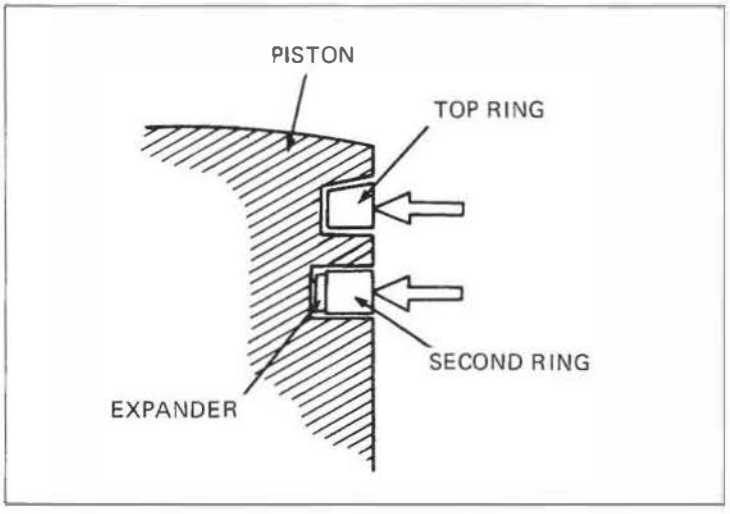
PISTON/CYLINDER INSTALLATION

Install the expander in the second ring groove.
Align the ring ends with the locating pins in the ring grooves and install the top and second rings in their respective ring grooves.

NOTE:

> The top ring is a keystone ring and is not interchangeable with the square second ring.

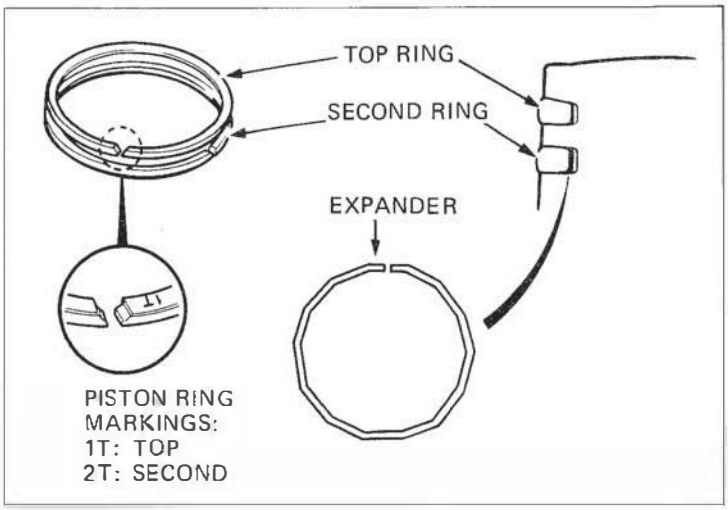
Check the fit of each ring in its groove by pressing the ring into the groove to make sure that it is flush with the piston at several points around the ring. A ring that will not compress means that the ring groove is dirty or that the ring is in the wrong groove.



© HONDA MOTOR CO., LTD.

NOTE:

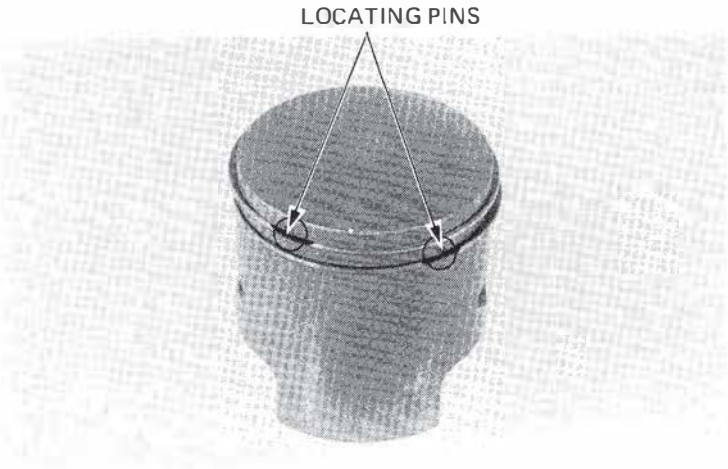
- Install the piston rings with the marks facing up.
- Do not replace one ring without replacing the other.
- Do not mix different brands of rings in one engine.



Make sure that the ring ends align with the locating pins in the ring grooves.

CAUTION:

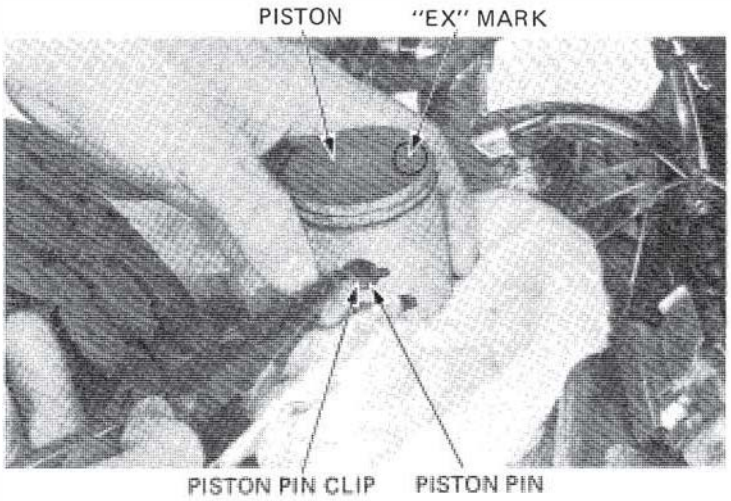
Be sure the rings do not rotate in their grooves over the locating pins to prevent ring breakage and piston and cylinder damage.



Place a shop towel over the crankcase opening to prevent piston pin clips from falling into the crankcase.

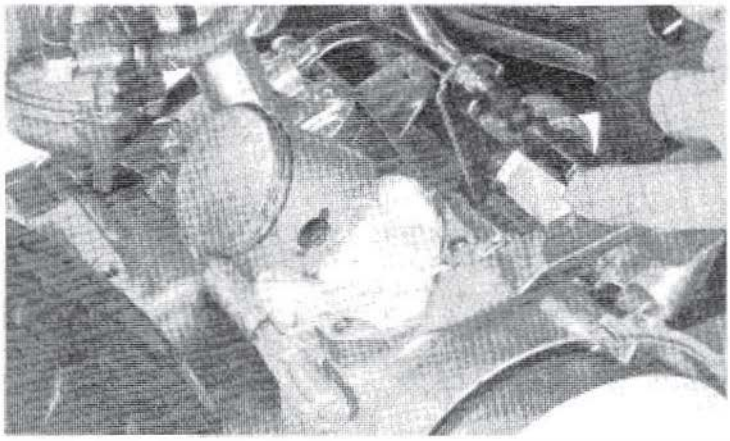
Coat the needle bearing and piston pin with 2-stroke oil. Install the needle bearing in the connecting rod, and install the piston "EX" mark facing the exhaust side.

Install new piston pin clips.

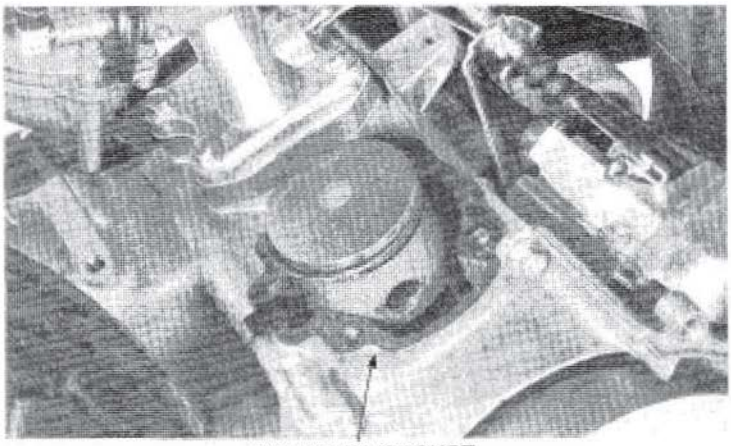


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Remove all gasket material from the cylinder and crankcase mating surfaces.



Place a new cylinder gasket on the crankcase.

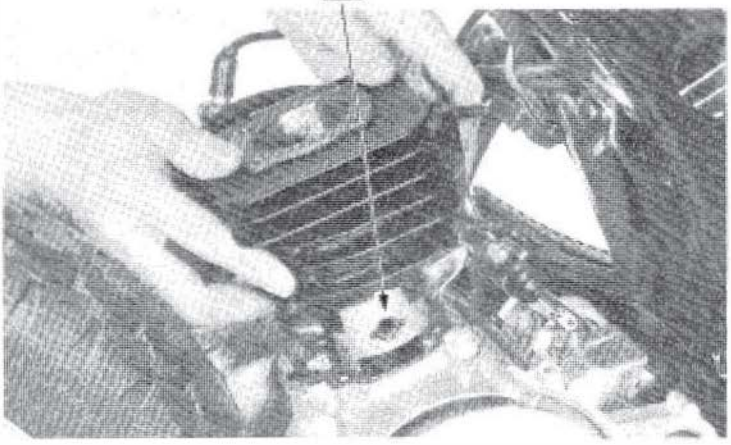


CYLINDER GASKET

Lubricate the cylinder and piston with 2-stroke oil and install the cylinder over the piston while compressing the piston rings.

CAUTION:

Avoid damaging the sliding surface of the piston.



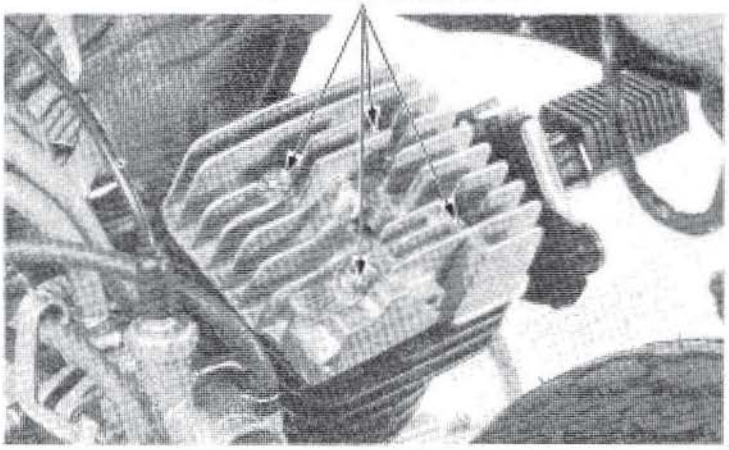
© HONDA MOTOR CO., LTD.

CYLINDER HEAD INSTALLATION

Install the cylinder head on the cylinder using a new cylinder head gasket.
Install and tighten the four cylinder head bolts in a criss-cross pattern.

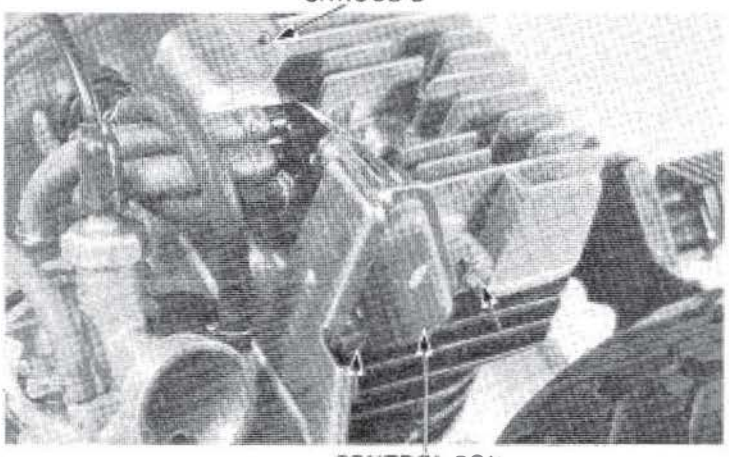
TORQUE: 8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)

CYLINDER HEAD BOLTS



Install engine shroud B.
Clean the cylinder head mating face of the control box and install the control box.

SHROUD B



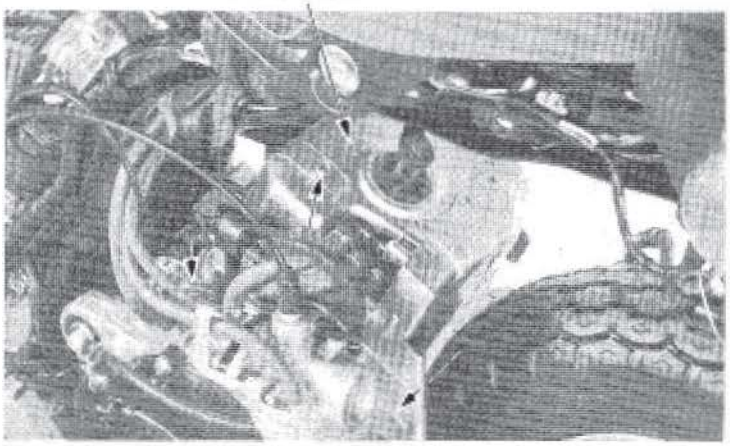
CONTROL BOX

Install engine shroud A.

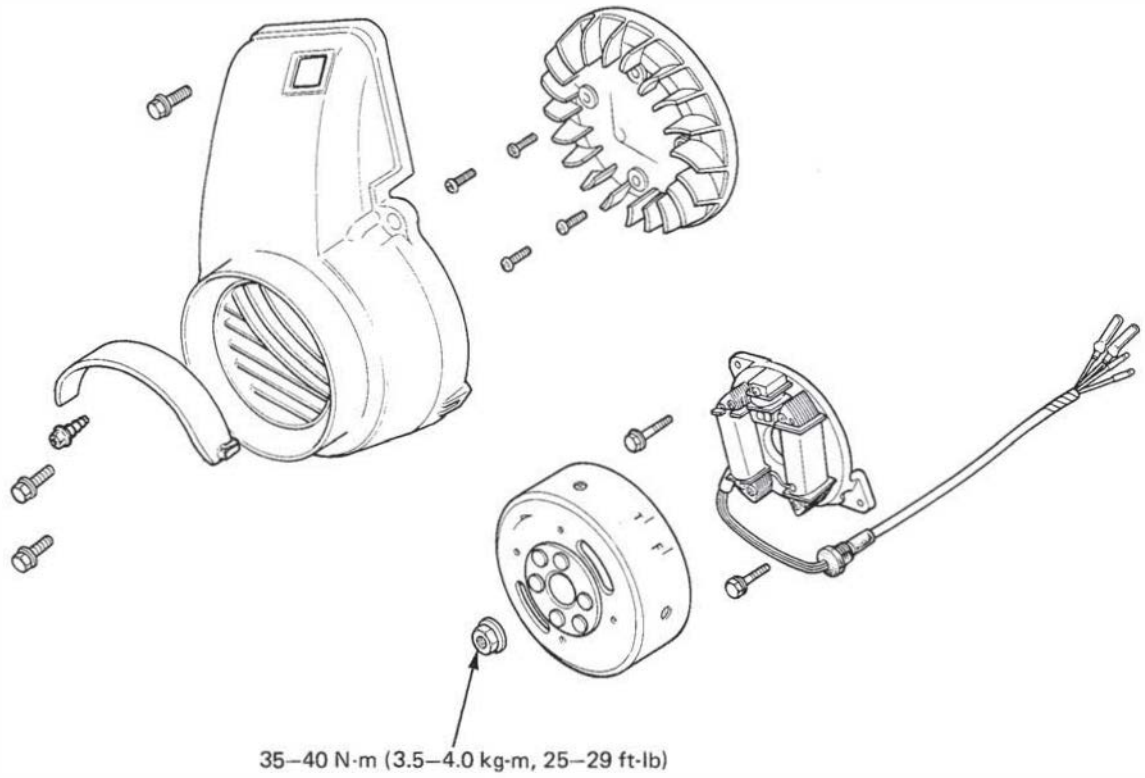
Install all removed parts in the reverse order of removal.

Perform the following inspections:
- Compression test (Page 3-8)
- Check for any abnormal engine noise.
- Check for cylinder air leaks.

SHROUD A



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

7. ALTERNATOR

SERVICE INFORMATION

GENERAL

- All alternator maintenance can be made with the engine installed.
- Do not remove the pulse generator from the stator base.
- See Section 15 for alternator inspection.

TORQUE VALUE

Flywheel	35–40 N·m (3.5–4.0 kg·m, 25–29 ft·lb)

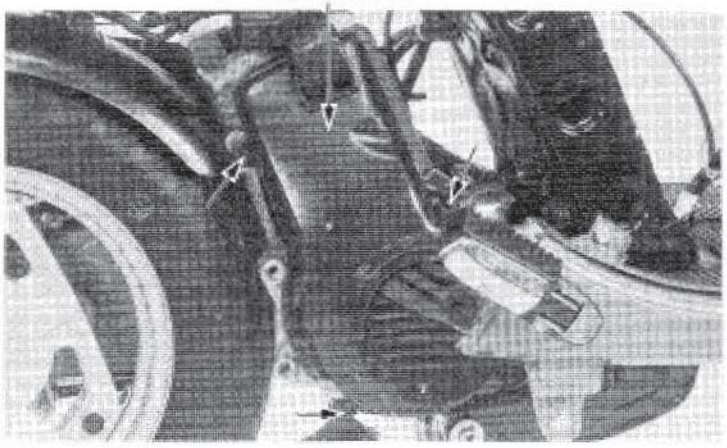
TOOLS

Common	
Rotor puller	07733–0010000 or 07933–0010000
Universal holder	07725–0030000

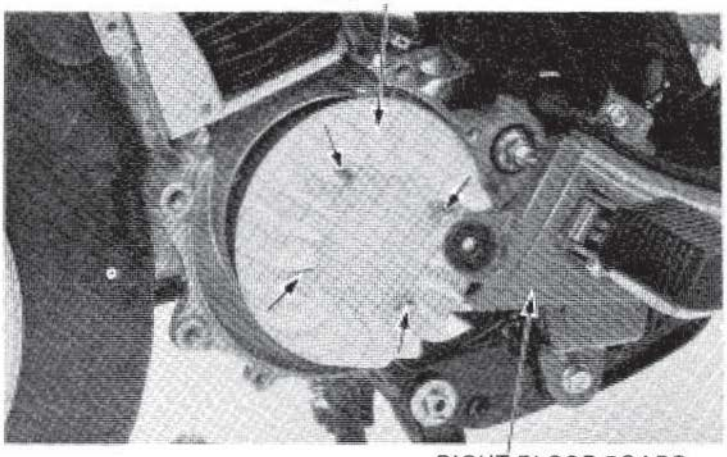
© HONDA MOTOR CO., LTD.

ALTERNATOR REMOVAL

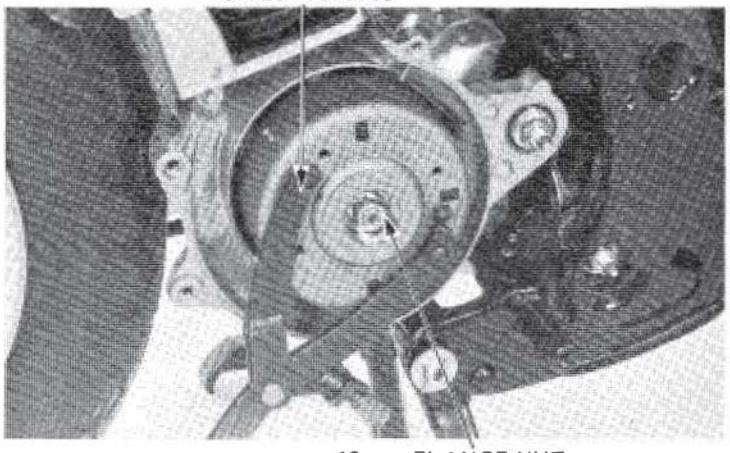
Remove the frame center cover (Section 11).
Remove the muffler.
Remove the fan cover.



Remove the four bolts attaching the cooling fan and remove the cooling fan.
Remove the right floor board.



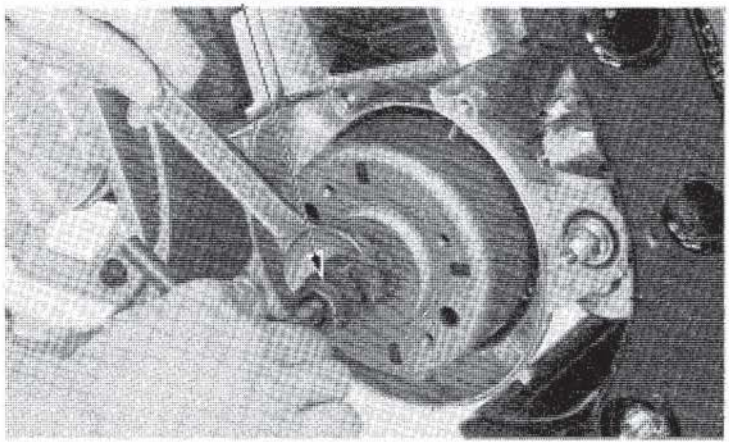
Attach the universal holder to the flywheel.
Hold the flywheel and remove the flywheel 10 mm flange nut.



© HONDA MOTOR CO., LTD.

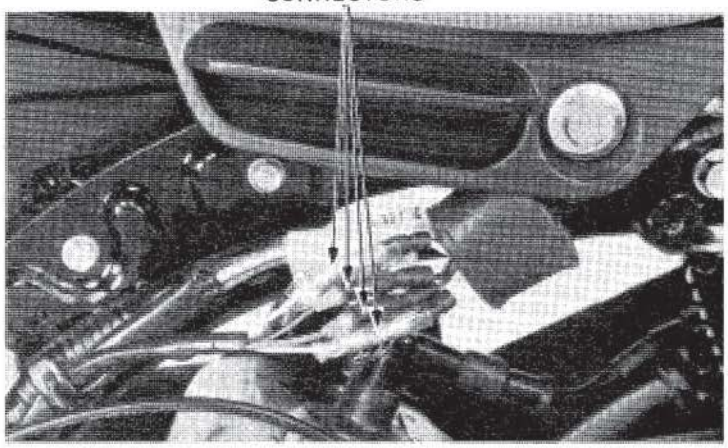
Remove the flywheel with the rotor puller.
Remove the woodruff key.

ROTOR PULLER
07733–0010000 or 07933–0010000



Disconnect the alternator wire connectors.

CONNECTORS

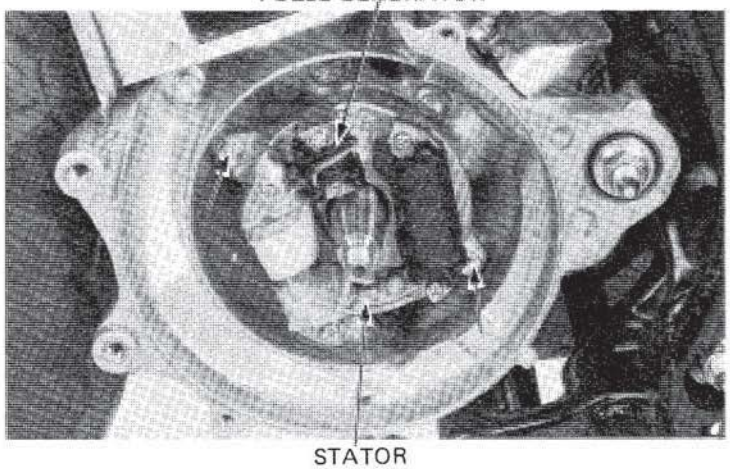


Remove the two bolts attaching the stator and remove the stator.

NOTE:

- Do not remove the pulse generator from the stator base.
- Avoid damaging the stator coils.

PULSE GENERATOR

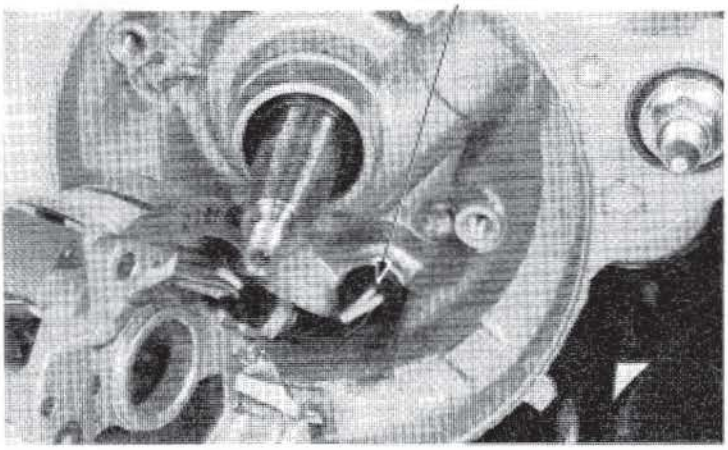


STATOR

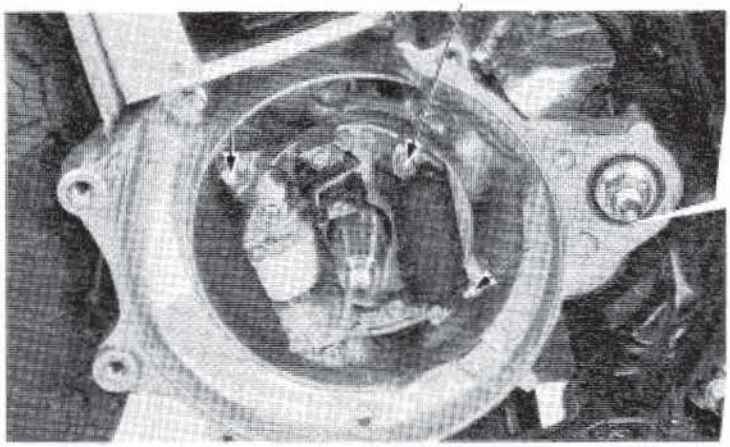
© HONDA MOTOR CO., LTD.

ALTERNATOR INSTALLATION

Install the alternator wire grommet in the case.



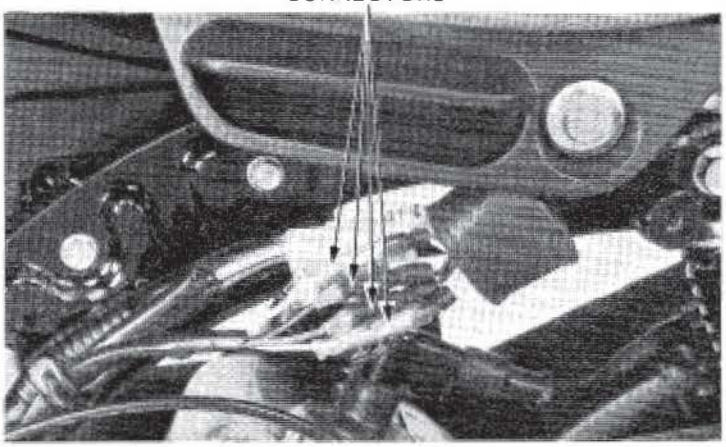
Install the stator.
Install the woodruff key in the keyway in the crankshaft.



Connect the alternator wire connectors.

NOTE:

> Route the alternator wires properly and secure with the wire clamp.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

NOTE:

Clean the tapered hole in the flywheel of any burrs.

Install the flywheel onto the crankshaft.

NOTE:

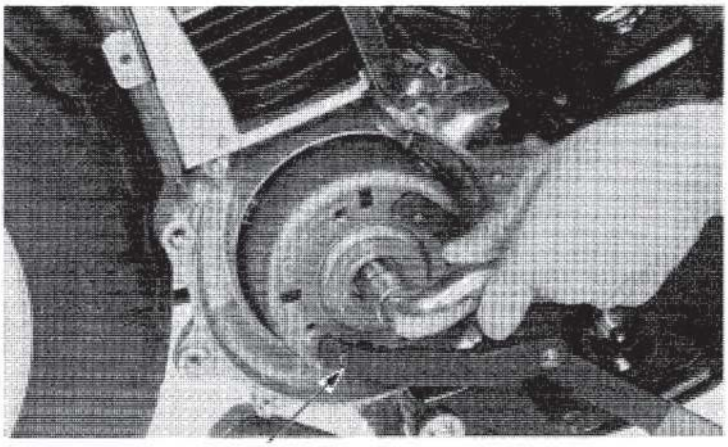
Make sure that there are no foreign particles inside the flywheel.

Torque the flywheel 10 mm flange nut.

TORQUE: 35–40 N·m
(3.5–4.0 kg-m, 25–29 ft-lb)

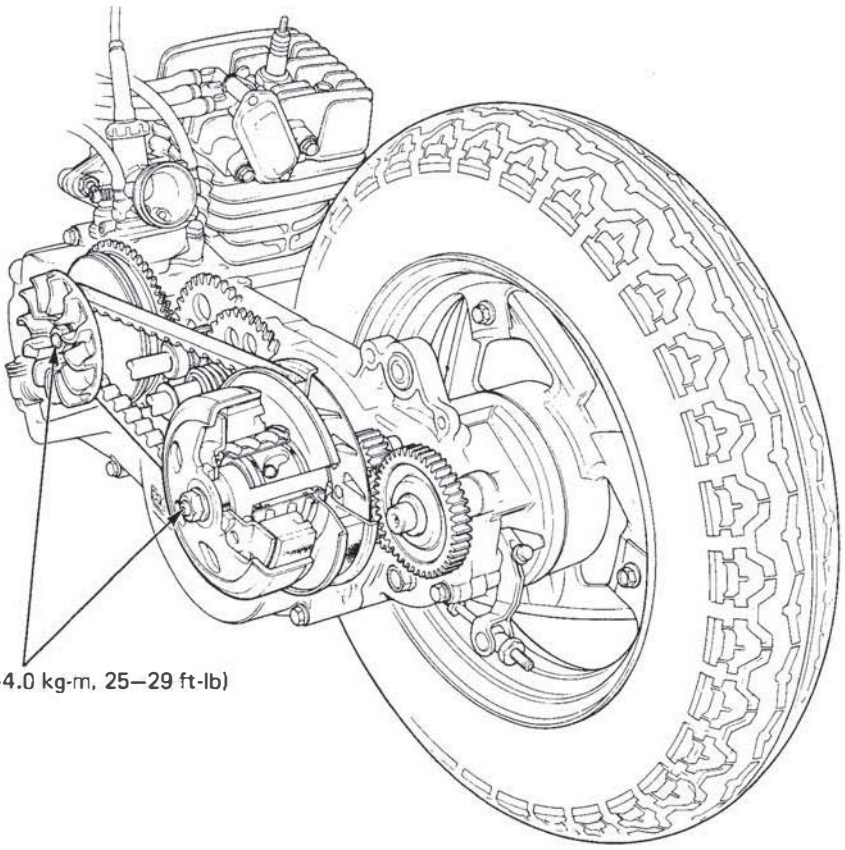
Install all removed parts in the reverse order of removal.

Start the engine and check the ignition timing (Page 15-8).

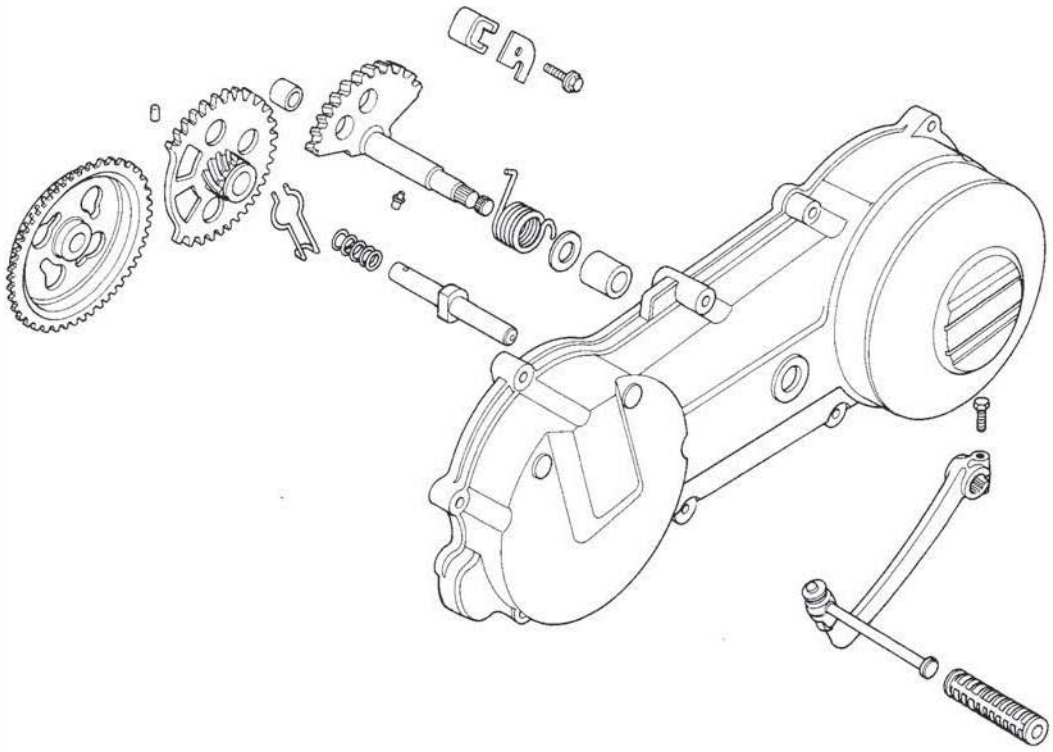


UNIVERSAL HOLDER
07725–0030000

© HONDA MOTOR CO., LTD.



35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER/CLUTCH

SERVICE INFORMATION

GENERAL

- Avoid getting grease and oil on the drive belt and pulley faces.

SPECIFICATIONS

ITEM	STANDARD	SERVICE LIMIT
Movable drive face bushing I.D.	24.000–24.021 mm (0.9449–0.9457 in)	24.070 mm (0.9476 in)
Drive face boss O.D.	23.970–23.990 mm (0.9437–0.9444 in)	23.940 mm (0.9425 in)
Weight roller O.D.	17.92–18.08 mm (0.7055–0.7118 in)	17.40 mm (0.685 in)
Clutch outer I.D.	112.0–112.2 mm (4.41–4.42 in)	112.5 mm (4.43 in)
Driven face spring free length	64.5 mm (2.54 in)	59.1 mm (2.33 in)
Driven face O.D.	33.950–33.975 mm (1.3366–1.3376 in)	33.930 mm (1.3358 in)
Movable driven face I.D.	34.000–34.025 mm (1.3386–1.3396 in)	34.060 mm (1.3409 in)

TORQUE VALUES

Movable drive face	35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)
Movable driven face	35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)
Clutch outer	35–40 N·m (3.5–4.0 kg-m, 25–29 ft-lb)

TOOLS

Special

Clutch spring compressor	07960–KJ90000
Bearing driver	07945–GC80000
Lock nut wrench, 39 mm	07916–1870001
Crankcase puller	07935–KG80000
Bearing driver attachment, 28 x 30 mm	07946–1870100

Common

Universal holder	07725–0030000
Bearing remover shaft	07746–0050100
Bearing remover head, 12 mm	07746–0050300
Bearing remover head, 15 mm	07746–0050400
Pilot, 15 mm	07746–0040300
Driver	07749–0010000

TROUBLESHOOTING

Engine starts but scooter won't move
1. Worn drive belt
2. Damaged ramp plate
3. Worn or damaged clutch lining

Engine stalls or scooter creeps
1. Broken clutch weight spring

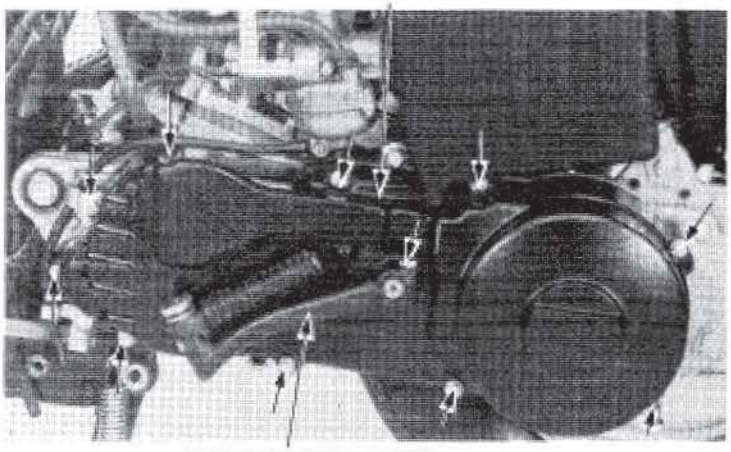
Poor performance at high speed or lack of power
1. Worn drive belt
2. Weak driven face spring
3. Worn weight roller
4. Faulty driven face

© HONDA MOTOR CO., LTD.

DRIVE PULLEY

LEFT CRANKCASE COVER REMOVAL

Remove the frame center cover and left floor board (Section 11).
Remove the kick starter pedal.
Remove the bolts and left case cover.

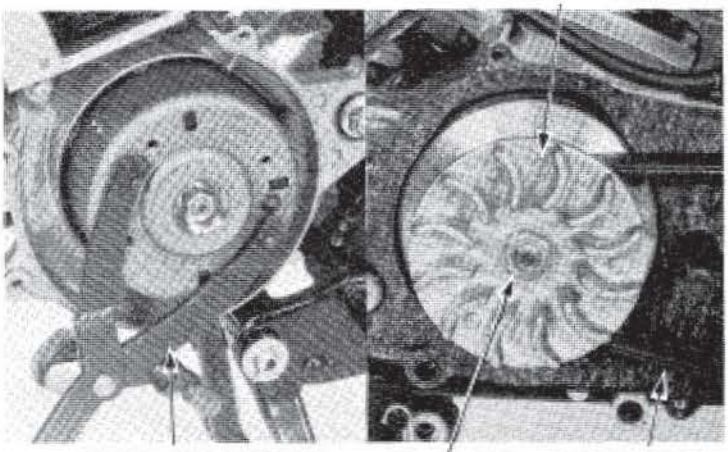


DRIVE BELT REMOVAL

Install the universal holder to hold the flywheel and remove the 10 mm flange nut and drive face.
Remove the drive belt.
Remove the gasket and dowel pins.

CAUTION:

Do not bend the drive belt.



DRIVE BELT INSPECTION

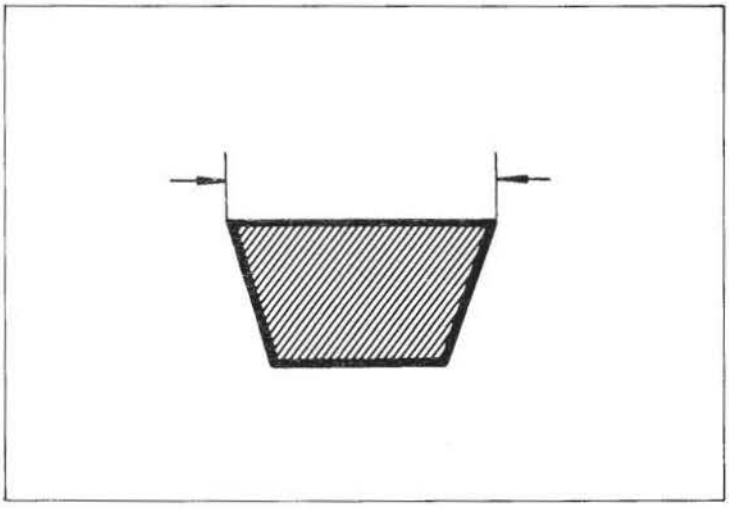
Check the drive belt for cracks, separation or abnormal or excessive wear.
Measure the drive belt width.

SERVICE LIMITS: 13.5 mm (0.531 in)

NOTE:

Use a genuine Honda Drive Belt.

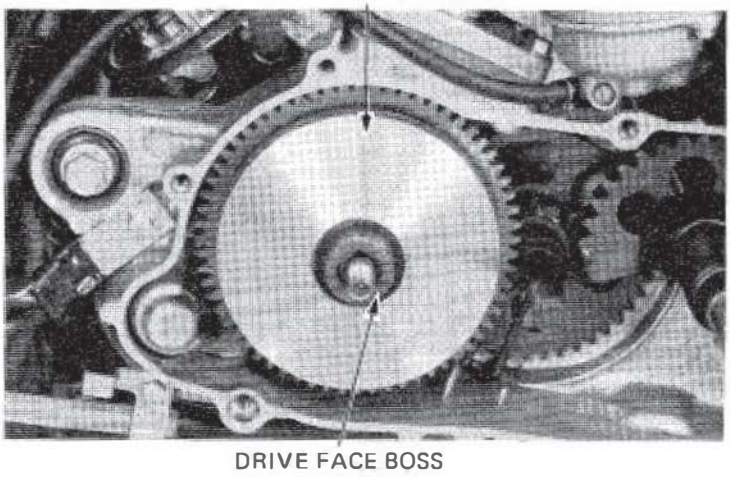
~~mm X 15.5 mm X 30~~
745 inch X 15 mm X 30
29.3307" X .5906"



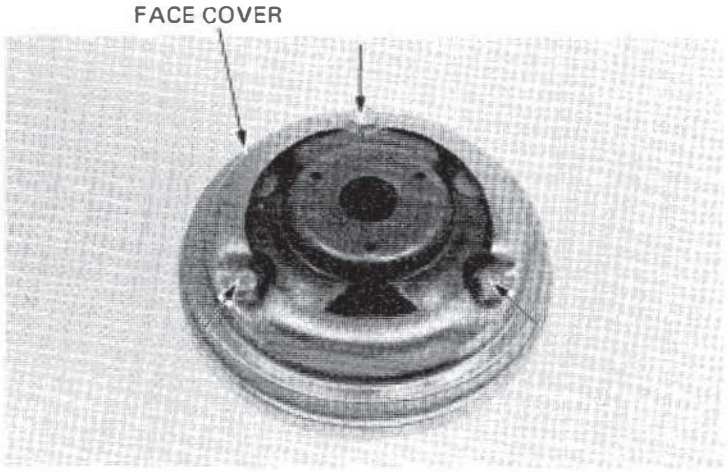
© HONDA MOTOR CO., LTD.

MOVABLE DRIVE FACE REMOVAL/ DISASSEMBLY

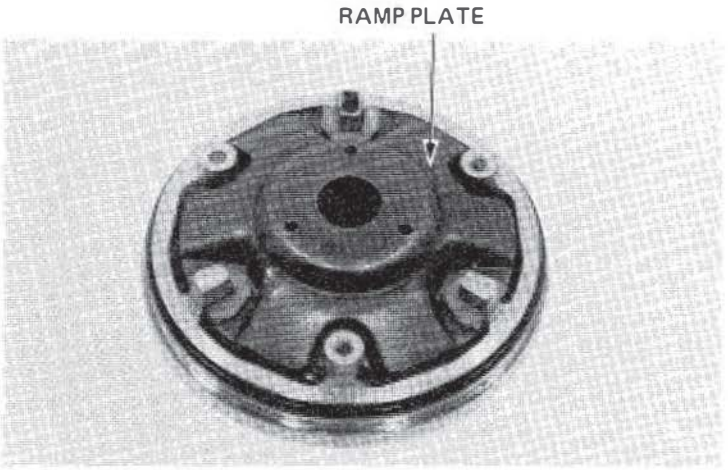
Remove the movable drive face assembly.



Remove the drive face boss.
Remove the three bolts attaching the movable drive face cover and remove the cover.

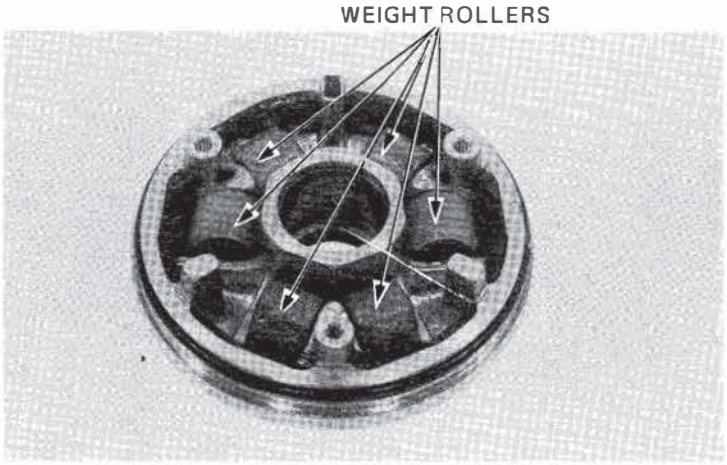


Remove the ramp plate.



© HONDA MOTOR CO., LTD.

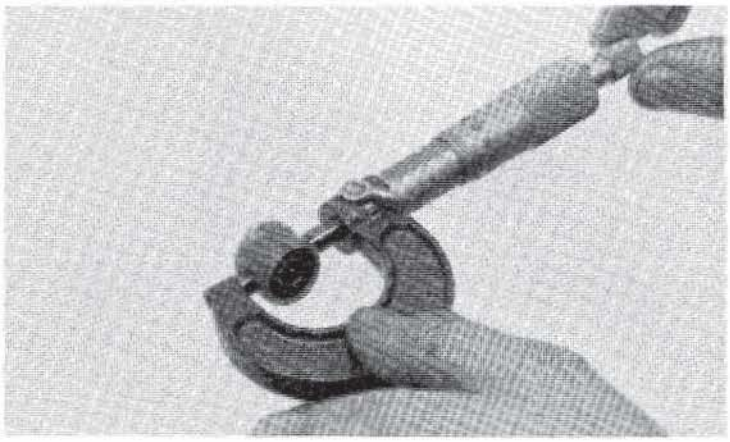
Remove the weight rollers.



MOVABLE DRIVE FACE INSPECTION

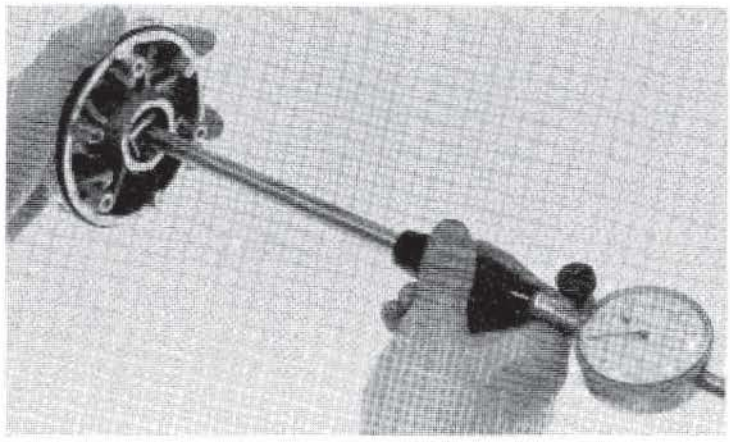
Check each roller for wear or damage.
Measure each roller O.D.

SERVICE LIMIT: 17.40 mm (0.685 in)



Measure movable drive face bushing I.D.

SERVICE LIMIT: 24.070 mm (0.9476 in)

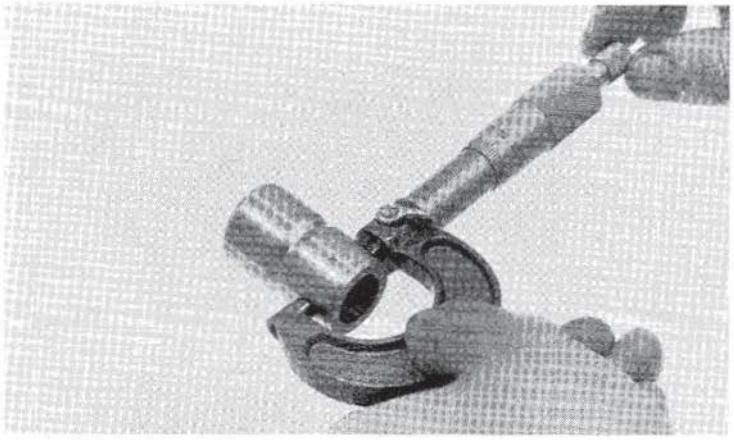


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

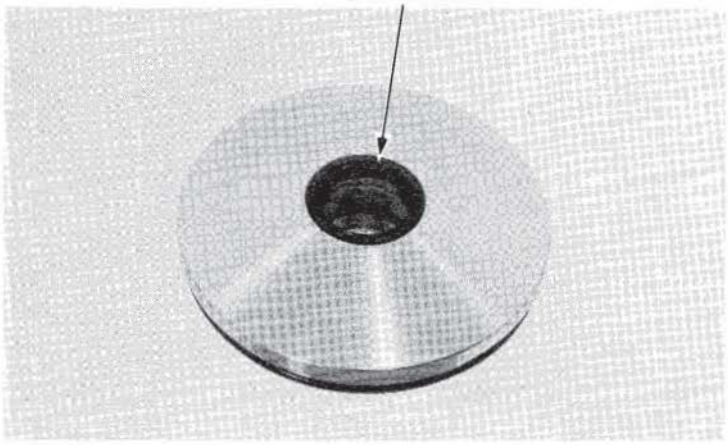
Inspect the drive face boss for wear or damage.
Measure the O.D. at the drive face contacting face.

SERVICE LIMIT: 23.940 mm (0.9425 in)

Replace if smaller than the service limit.



Check the face seal for wear or damage.

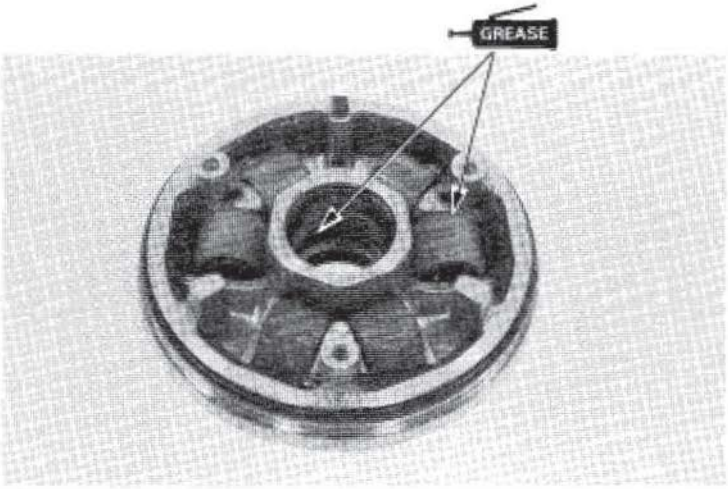


MOVABLE DRIVE FACE ASSEMBLY

Use 10--15g of grease and apply evenly to the inside of the drive face. Then install the weight rollers.

NOTE:

Specified grease:
Lithium based
- Mitsubishi: HD-3
- Nippon Sekiyu: Lipanox Deluxe 3
- Idemitsu: Coronex 3



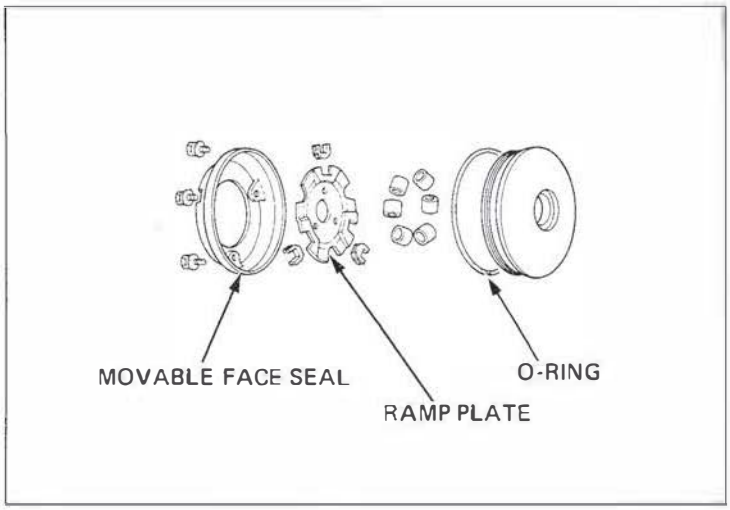
© HONDA MOTOR CO., LTD.

Install the ramp plate and movable face cover.
Tighten the seal attaching bolts to the specified torque.

TORQUE: 2.5–4.0 N·m
(0.25–0.40 kg-m, 2–3 ft-lb)

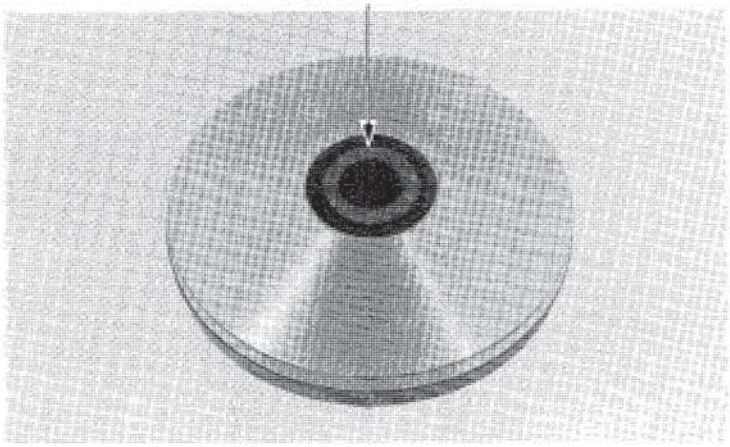
NOTE:

Make sure that the O-ring is in position.



Install the drive face boss in the movable drive face.

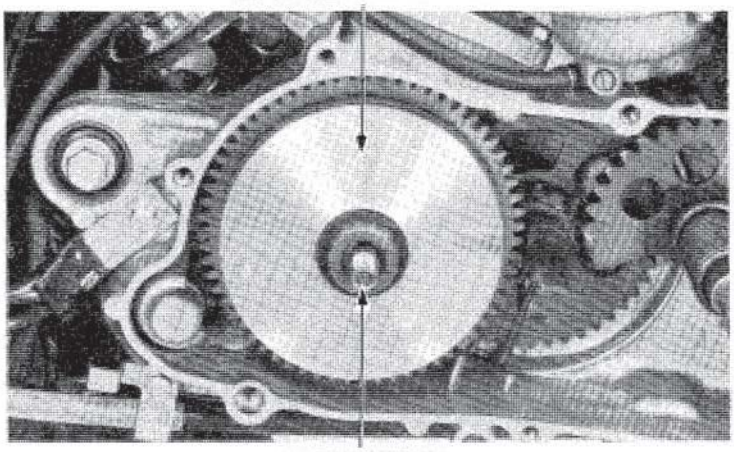
DRIVE FACE BOSS



MOVABLE DRIVE FACE INSTALLATION

Clean the hole in the movable drive face, drive face boss and crankshaft.
Install the movable drive face assembly onto the crankshaft.

MOVABLE DRIVE FACE

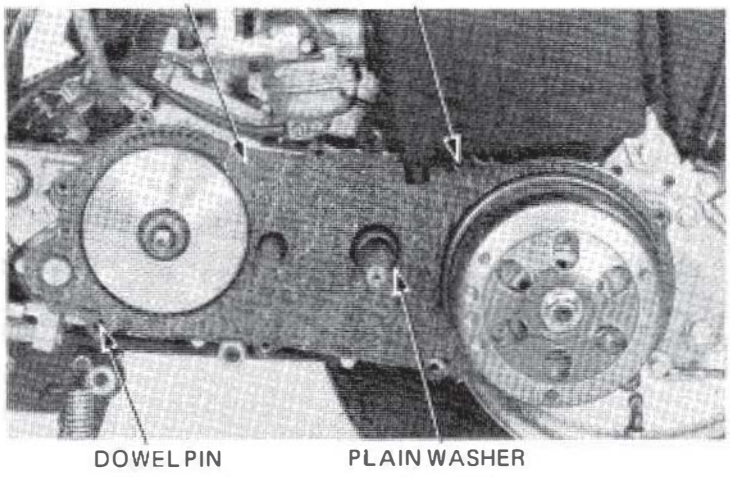


CRANKSHAFT

© HONDA MOTOR CO., LTD.

DRIVE FACE AND LEFT CASE COVER INSTALLATION

Install the gasket and dowel pins.
Install the plain washer onto the kick spindle.

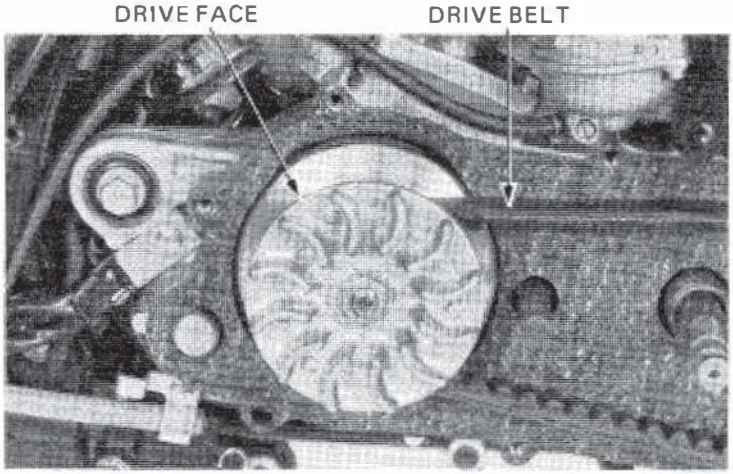


Install the drive belt.
Install the universal holder.
Install the movable drive face and tighten the 10 mm flange nut.

TORQUE: 35–40 N·m
(3.5–4.0 kg-m, 25–29 ft-lb)

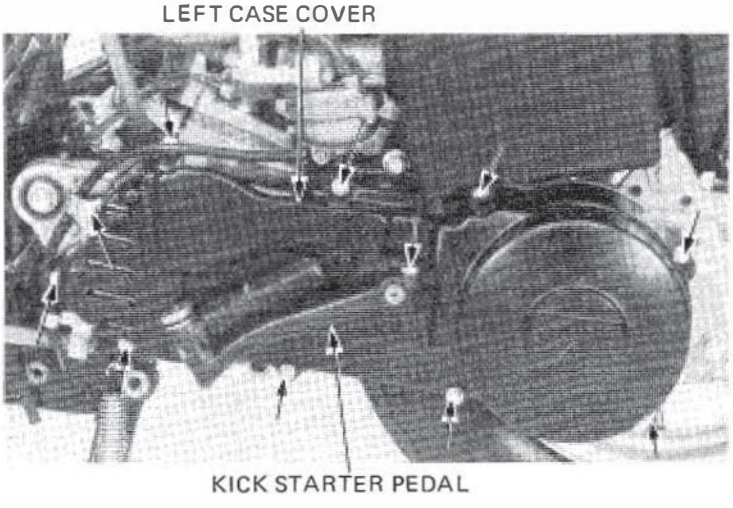
NOTE:

> Do not get oil or grease on the drive belt or pulleys.



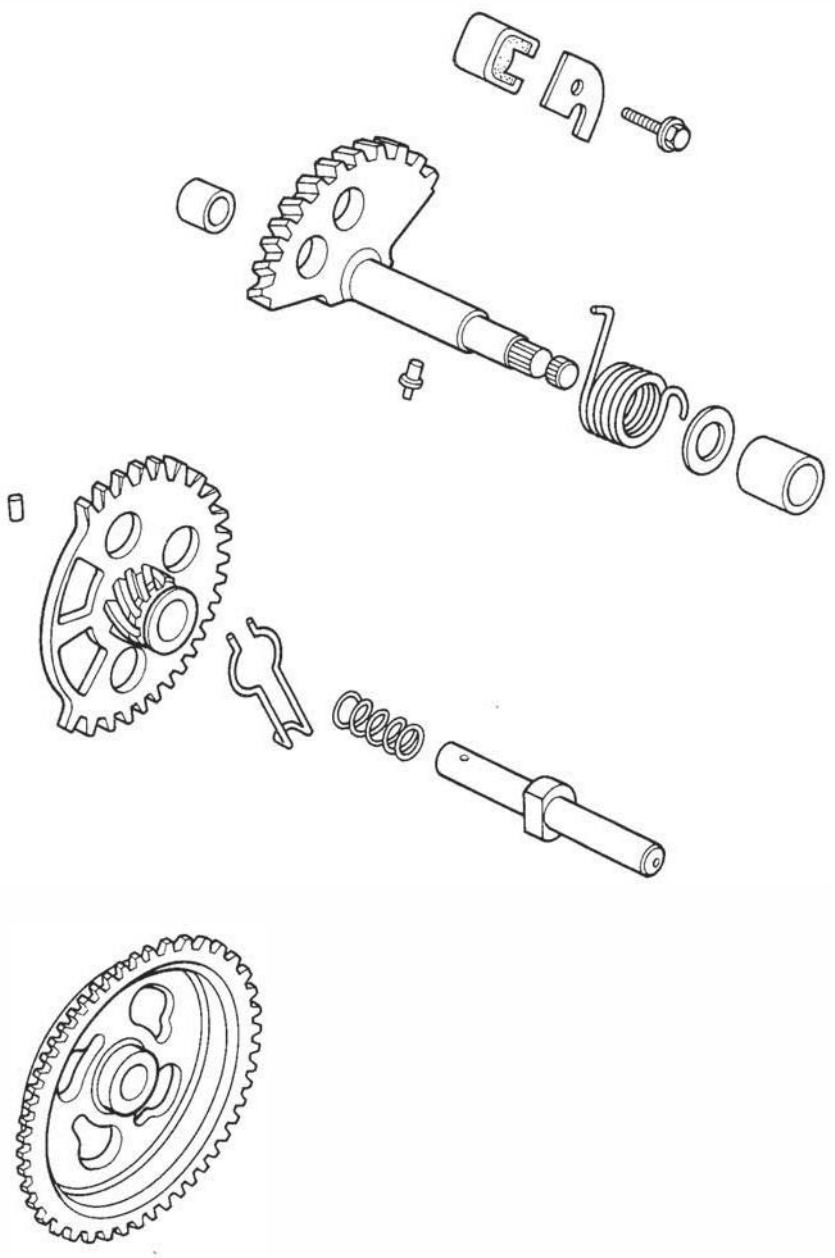
Install the left case cover and kick starter pedal.

Install the left floor board and frame center cover.



© HONDA MOTOR CO., LTD.

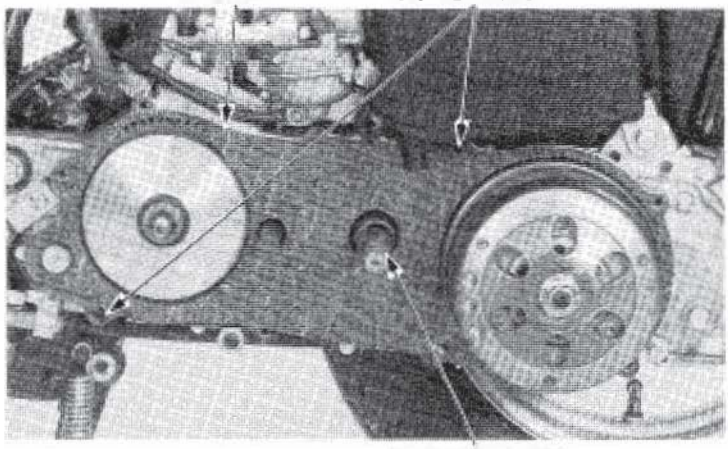
KICK STARTER



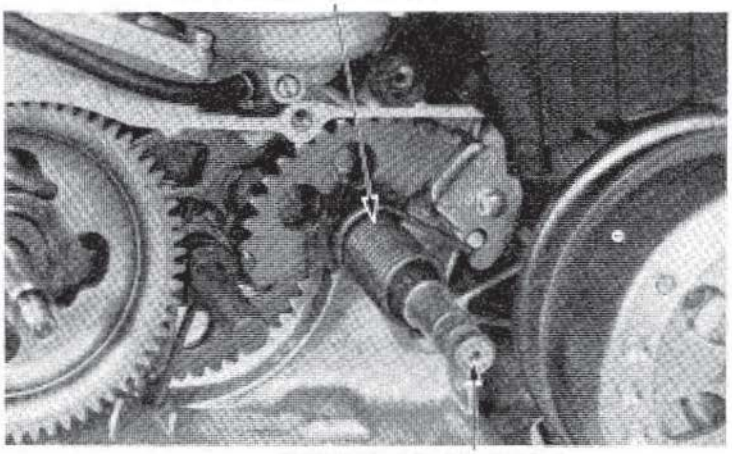
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

KICK STARTER REMOVAL

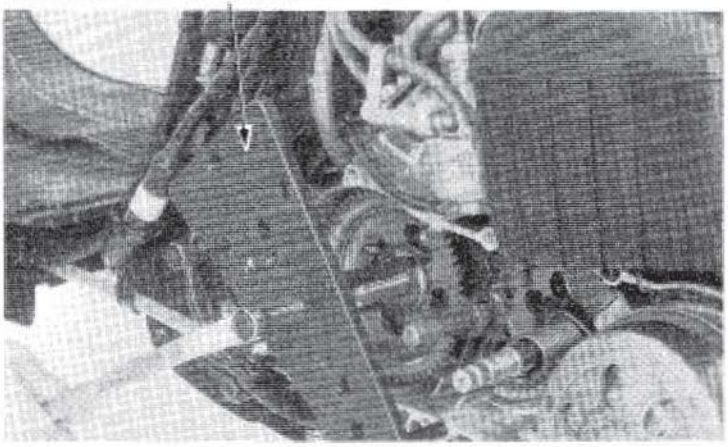
Remove the left case cover, movable drive face (Page 8-3) and drive belt (Page 8-2).
Remove the gasket and dowel pins.
Remove the plain washer from the kick starter spindle.



Remove the kick starter spring from the kick return stopper.
Remove the kick starter spindle.



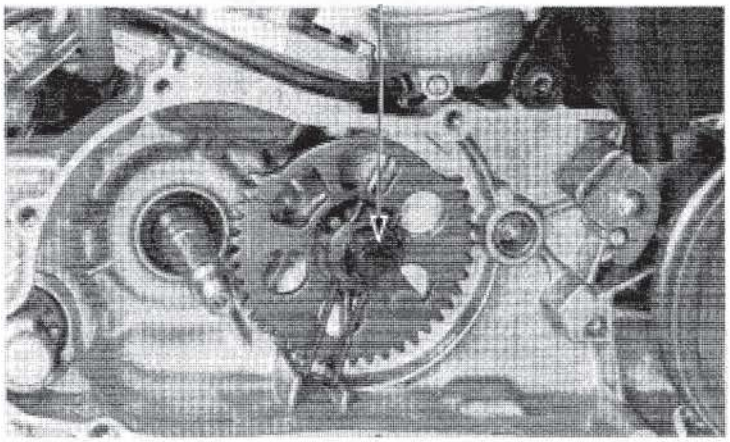
Attach the crankcase puller as shown with the two long special bolts.
Remove the kick starter driven gear with the case puller.



© HONDA MOTOR CO., LTD.

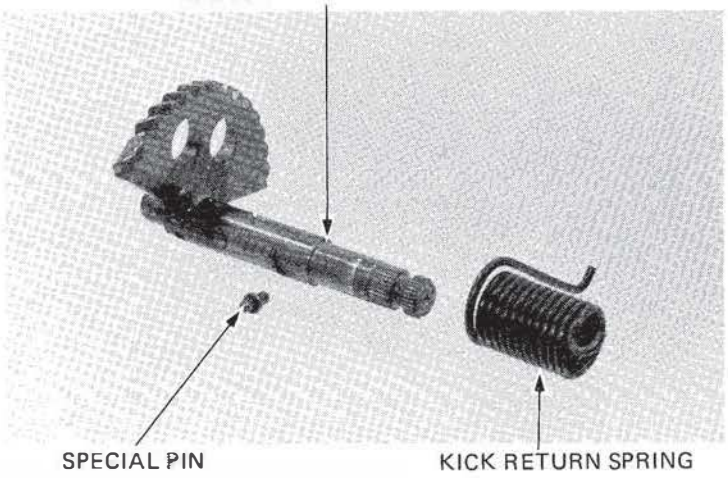
Remove the kick starter idle shaft.

KICK STARTER IDLE SHAFT

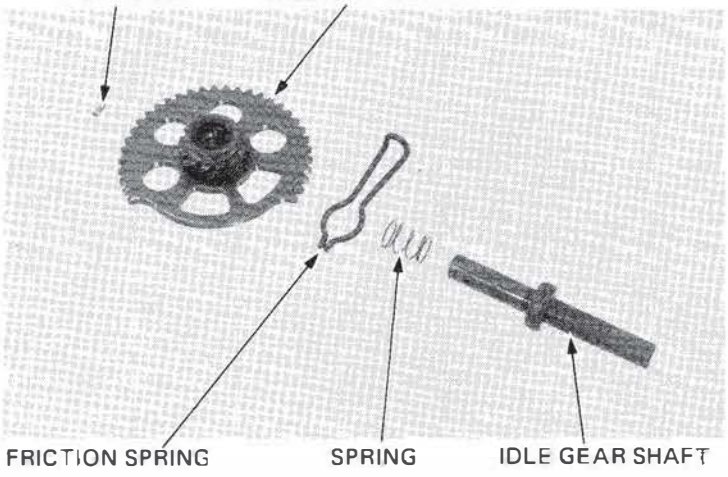


KICK STARTER DISASSEMBLY

Disassemble the kick starter spindle.



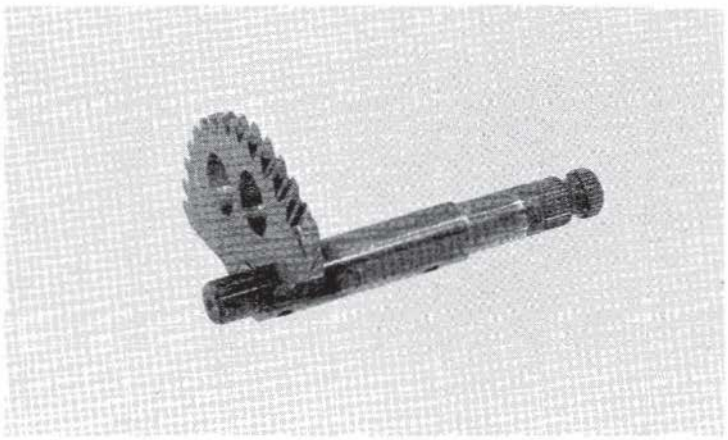
Disassemble the kick starter idle shaft.



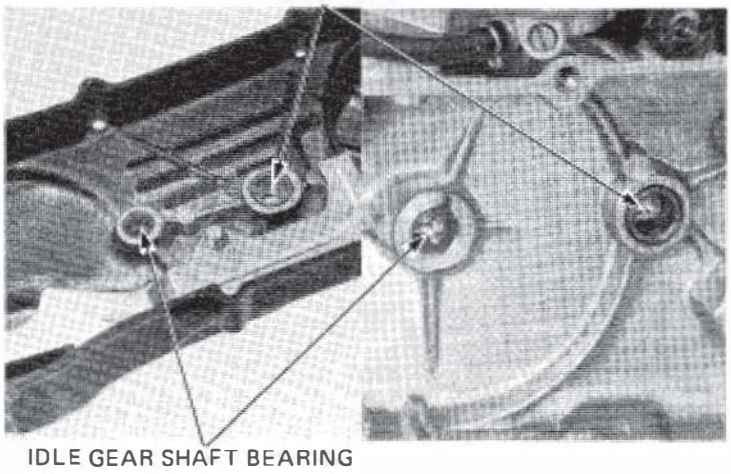
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

KICK STARTER INSPECTION

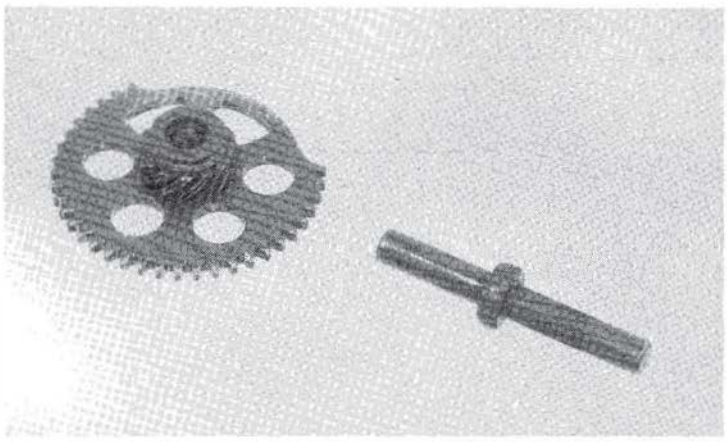
Inspect the kick starter spindle for wear or damage.



Inspect the kick starter spindle bushings and idle gear shaft bearings for wear or damage.



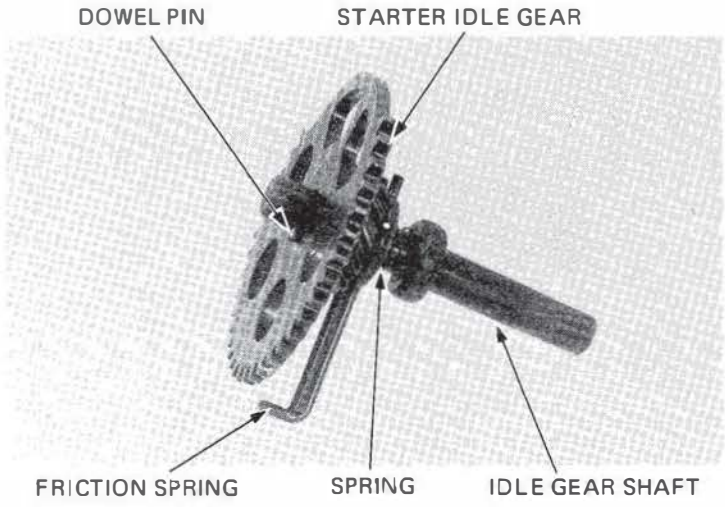
Inspect the idle gear and shaft for wear or damage.



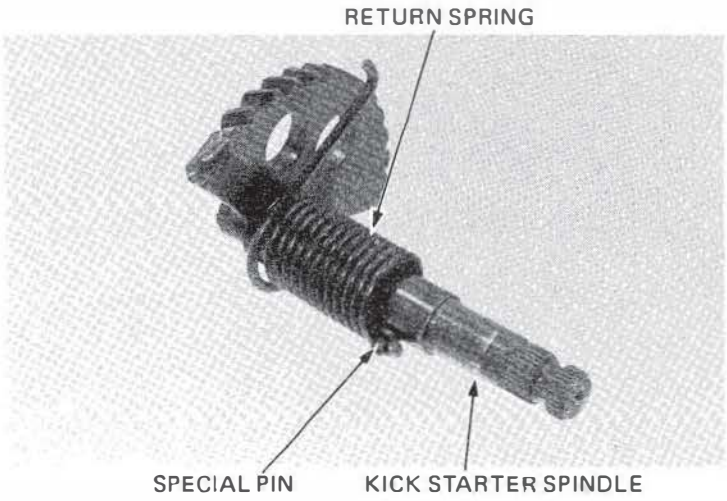
© HONDA MOTOR CO., LTD.

KICK STARTER ASSEMBLY

Assemble the kick starter idle shaft.

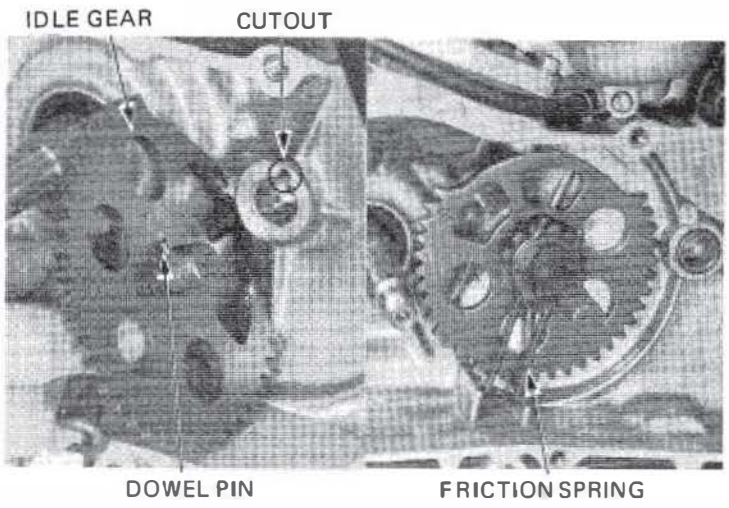


Install the special pin in the hole of the spindle and install the spring on the spindle.



KICK STARTER INSTALLATION

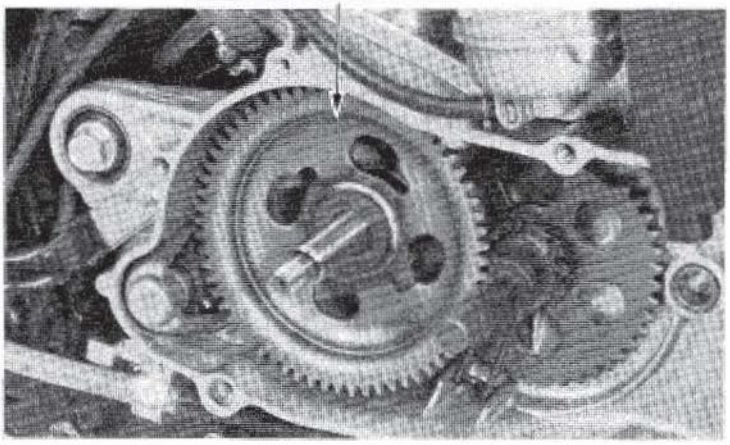
Apply grease to the spring groove and spline of the idle gear.
Install the kick starter idle gear aligning the dowel pin on the idle gear with the cutout of the case. Align the idle gear friction spring with the groove in the left case as shown.



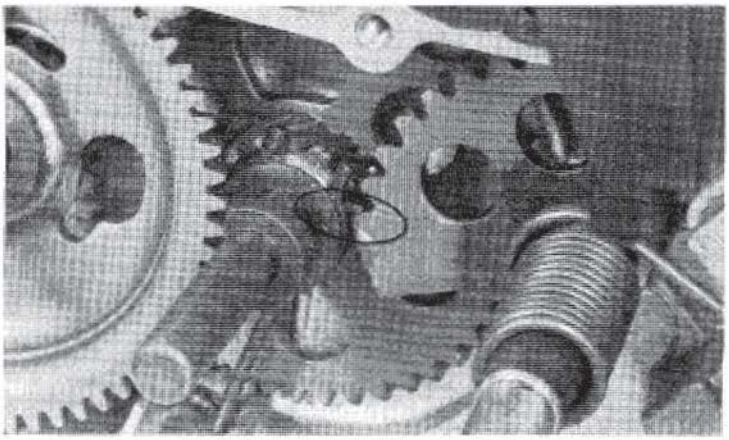
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Install the starter driven gear.

STARTER DRIVEN GEAR

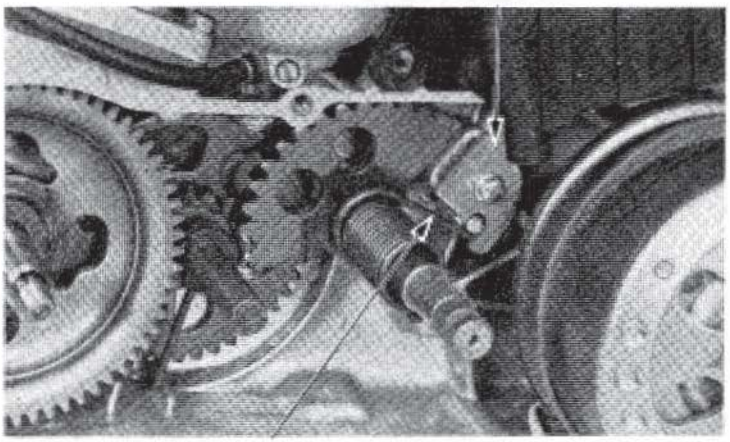


Install the kick starter spindle; turning the idle gear to align the punch mark as shown.



Hook the long end of the spindle return spring on the spring stopper as shown.
Install the drive belt and movable drive face assembly (Page 8-6).
Install the left case cover and kick starter pedal (Page 8-7).
Install the frame center cover (Section 11).

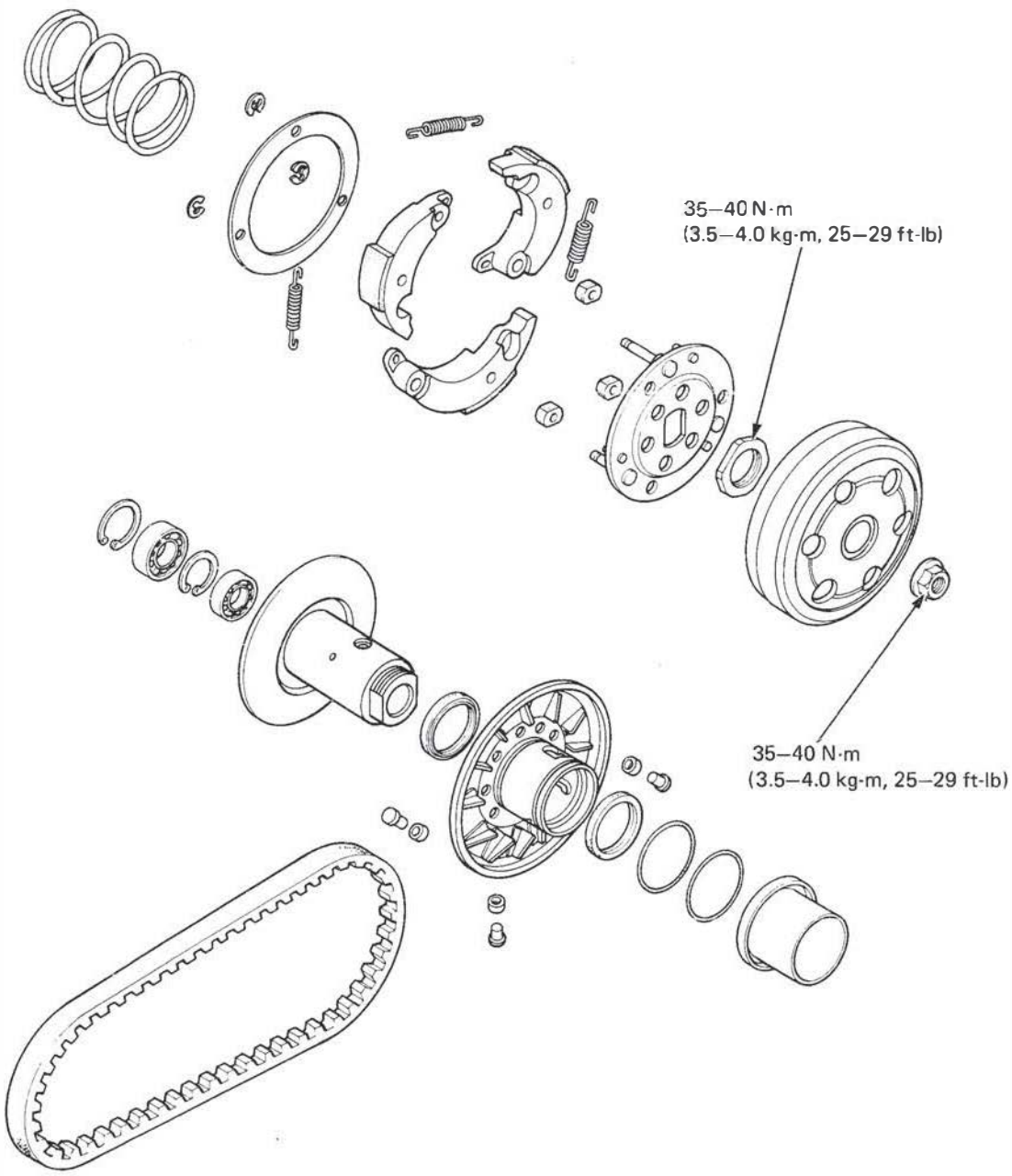
SPRING STOPPER



RETURN SPRING

©HONDA MOTOR CO., LTD.

CLUTCH/DRIVEN PULLEY

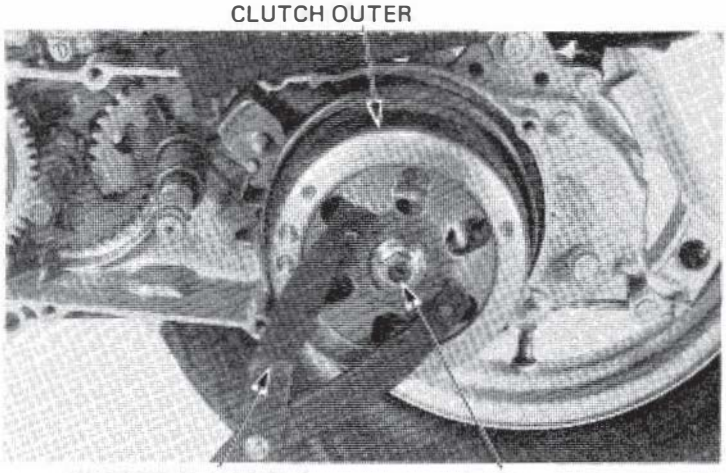


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

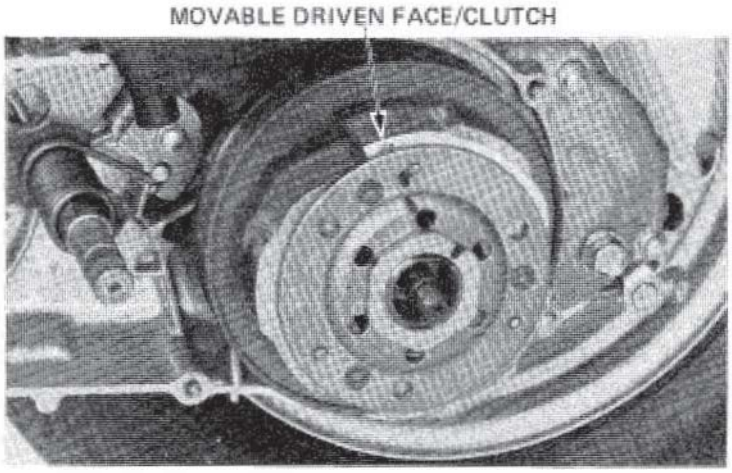
CLUTCH REMOVAL

Remove the left case cover (Page 8-2).
Remove the movable drive face and drive belt.

Remove the 10 mm flange nut holding the clutch outer with the universal holder and remove the clutch outer.

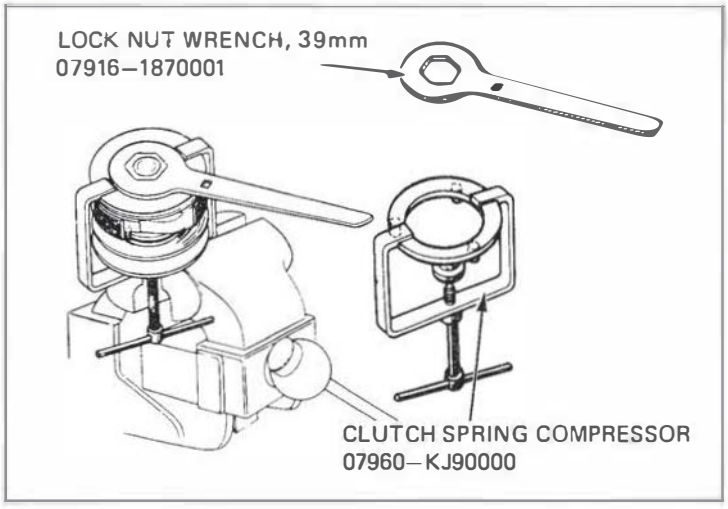


Remove the movable driven face and clutch from the drive shaft.

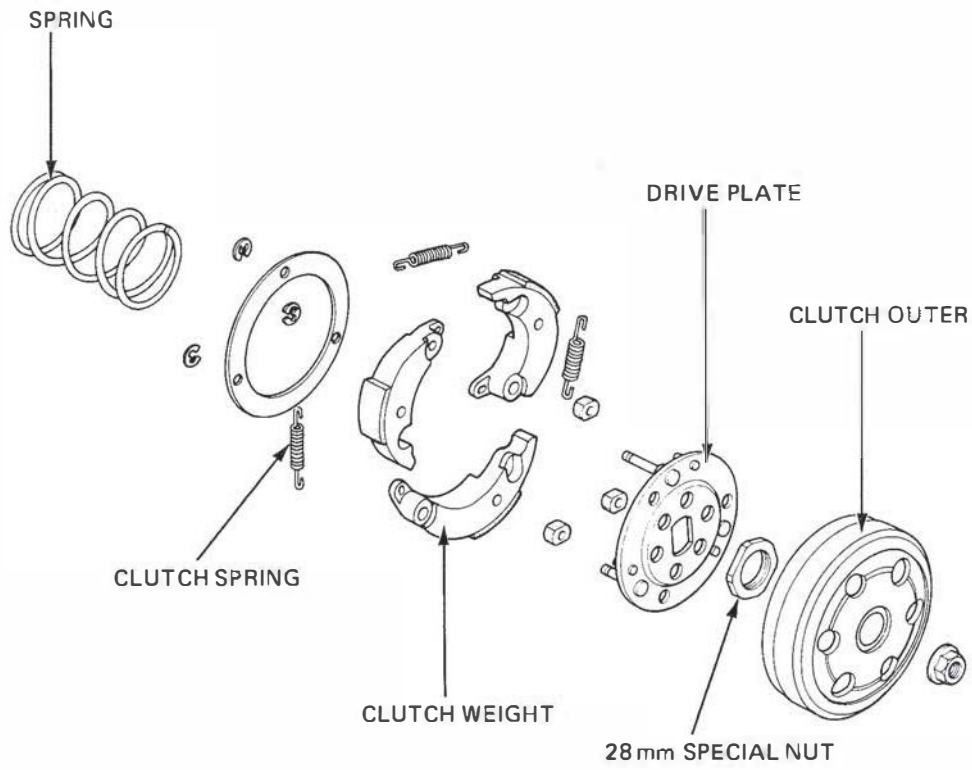


DRIVEN FACE DISASSEMBLY

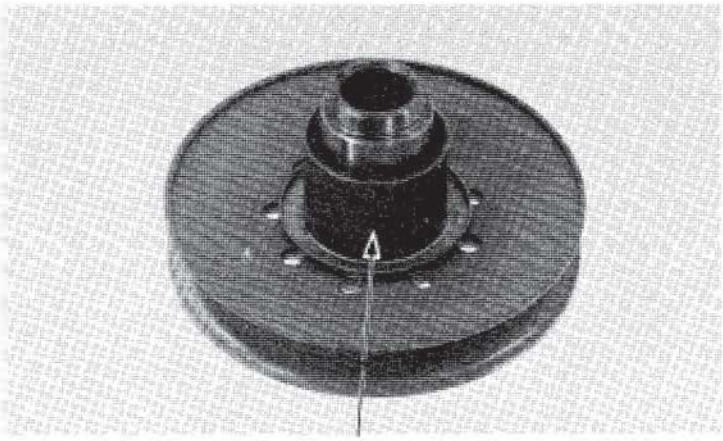
Position the driven pulley in the clutch spring compressor tool.
Turn the compressor handle to compress the spring.
Be sure the drive bolt is centered on the pulley.
Place the compressor in a vise and remove the 28 mm special nut.
Remove the compressor from the vise and back out the drive bolt.



© HONDA MOTOR CO., LTD.

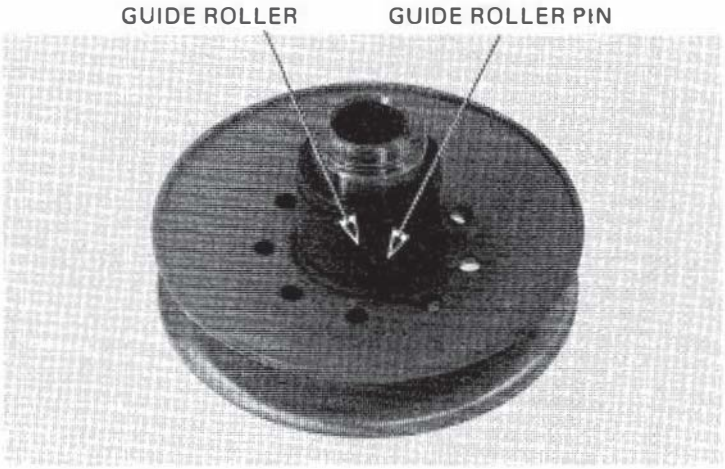


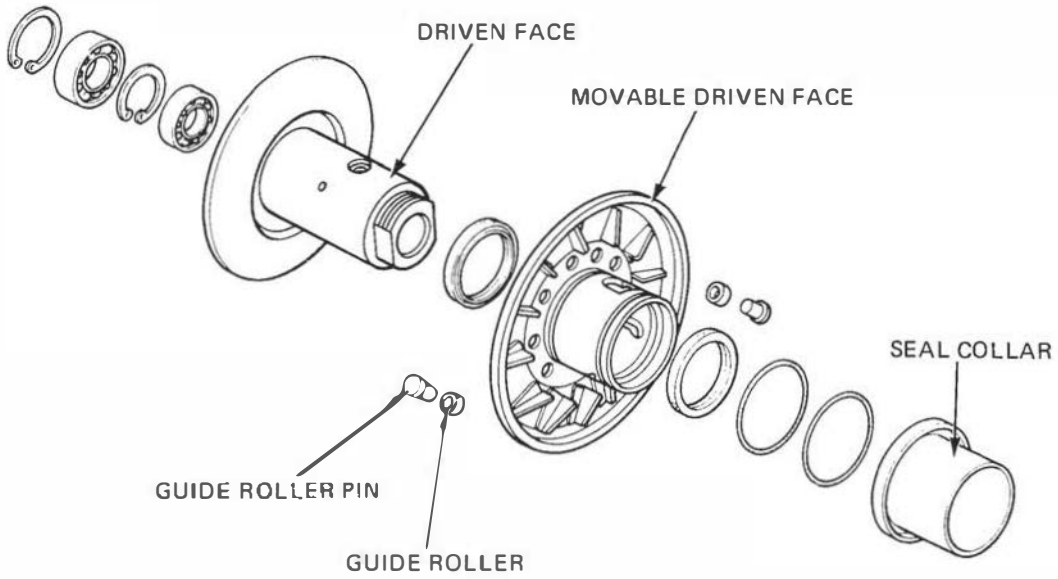
Remove the seal collar.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

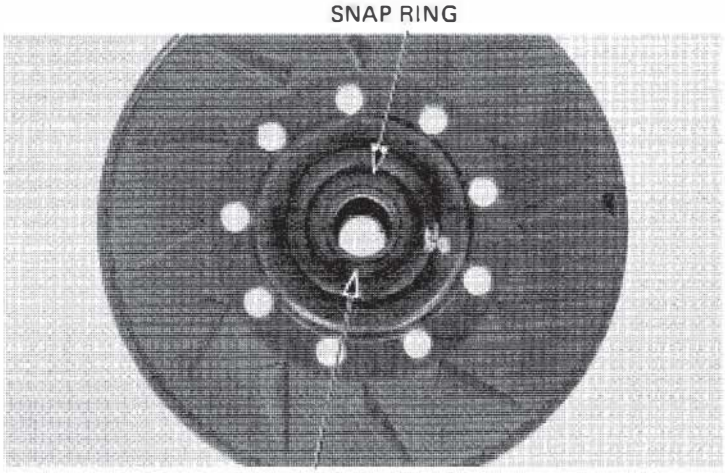
Withdraw the guide roller pin and guide roller.



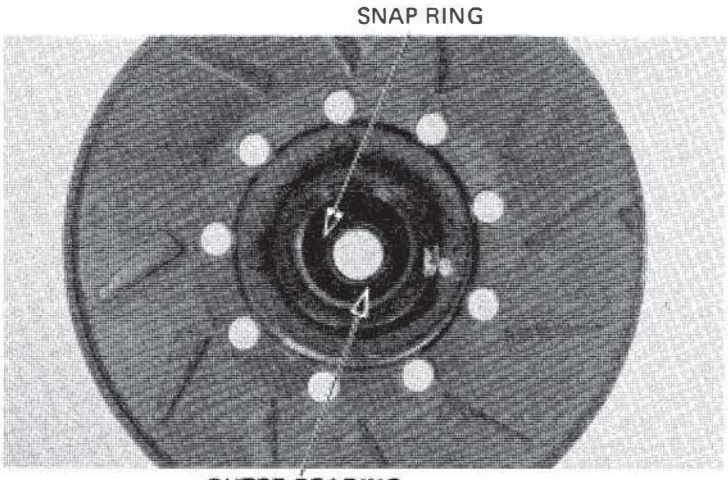


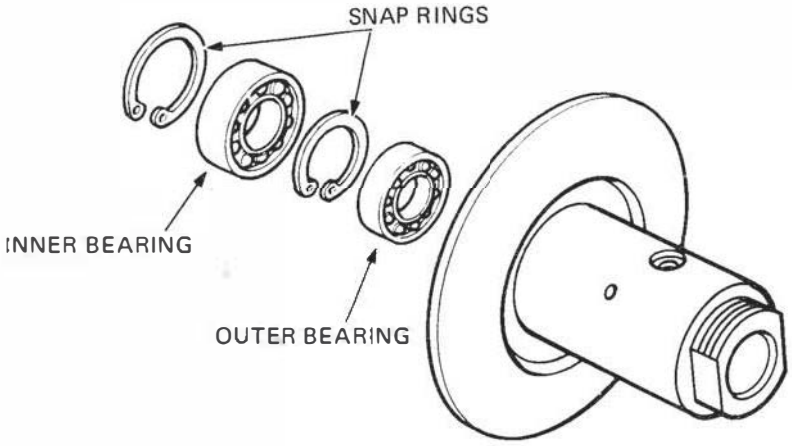
© HONDA MOTOR CO., LTD.

Remove the snap ring and remove the inner bearing with Bearing Remover Shaft (07746–0050100) and Bearing Remover Head, 15 mm (07746–0050400).



Remove the snap ring and remove the outer bearing with Bearing Remover Shaft (07746–0050100) and Bearing Remover Head, 12 mm (07746–0050300).



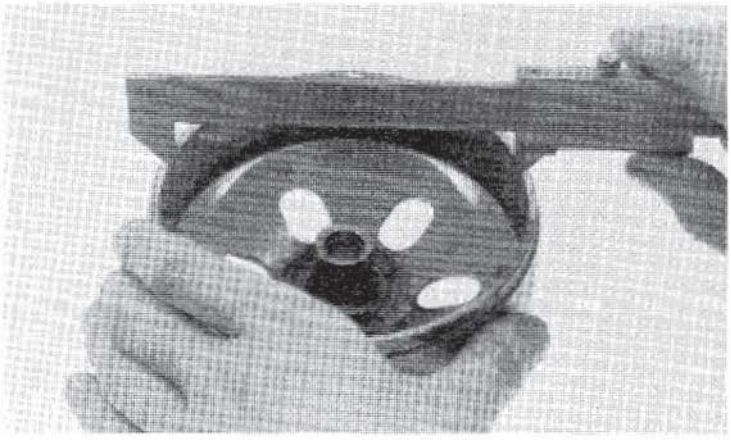


© HONDA MOTOR CO., LTD.

CLUTCH/DRIVEN FACE INSPECTION

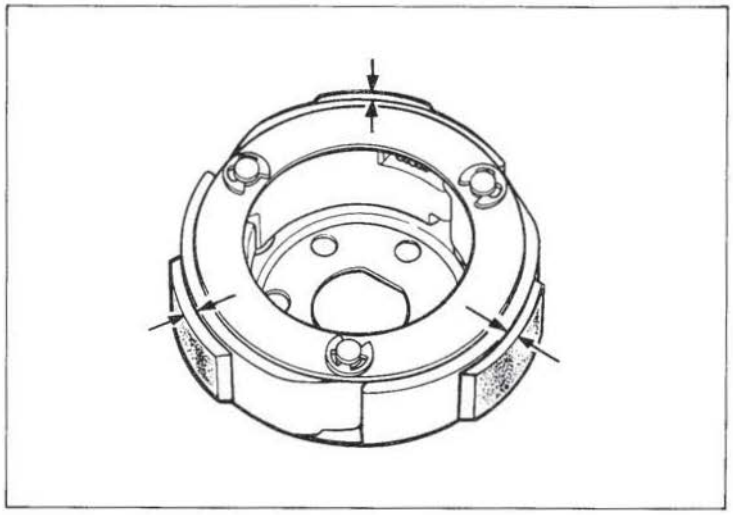
Inspect the clutch outer for wear or damage.
Measure the clutch outer I.D.

SERVICE LIMIT: 112.5 mm (4.43 in)



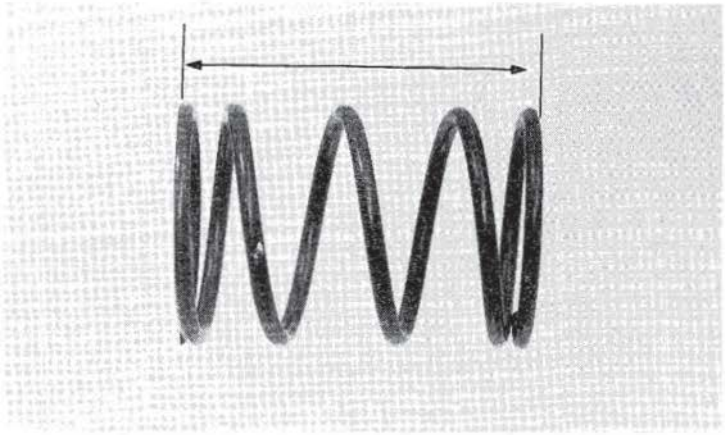
Inspect the clutch shoes for wear or damage.
Measure the thickness of each shoe.

SERVICE LIMIT: 2.0 mm (0.08 in)



Measure the driven face spring free length.

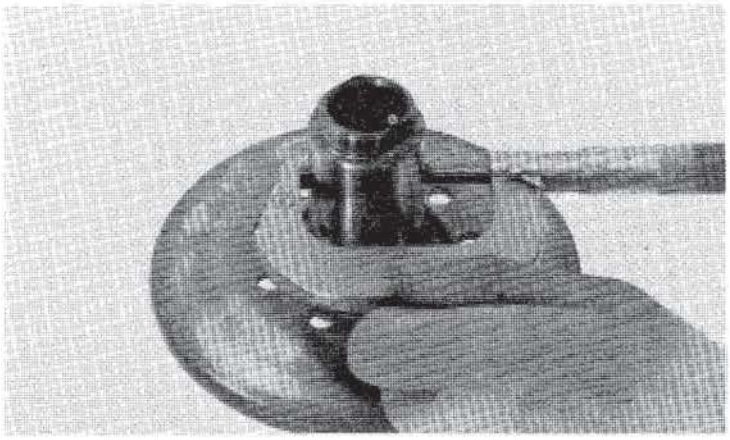
SERVICE LIMIT: 59.1 mm (2.33 in)



© HONDA MOTOR CO., LTD.

Inspect the driven face assembly for wear or damage.
Measure the driven face O.D.

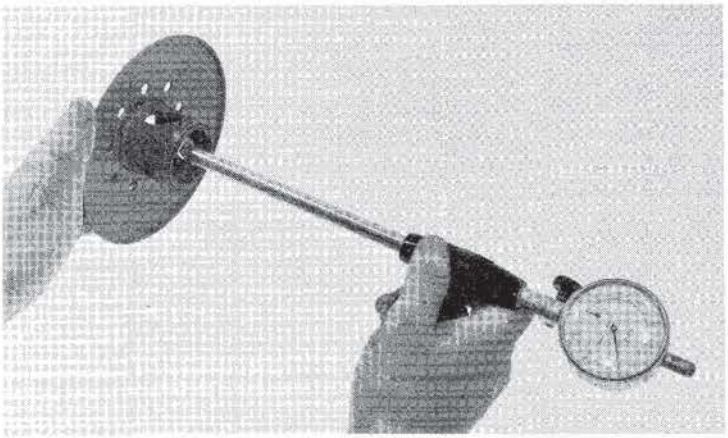
SERVICE LIMIT: 33.930 mm (1.3358 in)



Inspect the movable driven face for wear or damage.
Measure the movable driven face I.D.

SERVICE LIMIT: 34.060 mm (1.3409 in)

Check the guide groove for wear.
Check the oil seal for wear, damage or other faults.

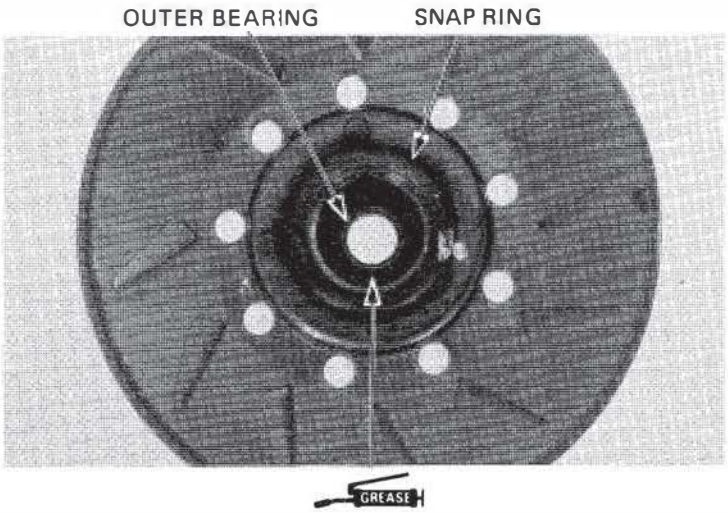


DRIVEN FACE ASSEMBLY

Using Bearing Driver (07945—GC80000), install the outer bearing in the movable driven face with the sealed end facing out.
Seat the snap ring in its groove.
Pack all bearing cavities with 5.0—5.5 g of grease.

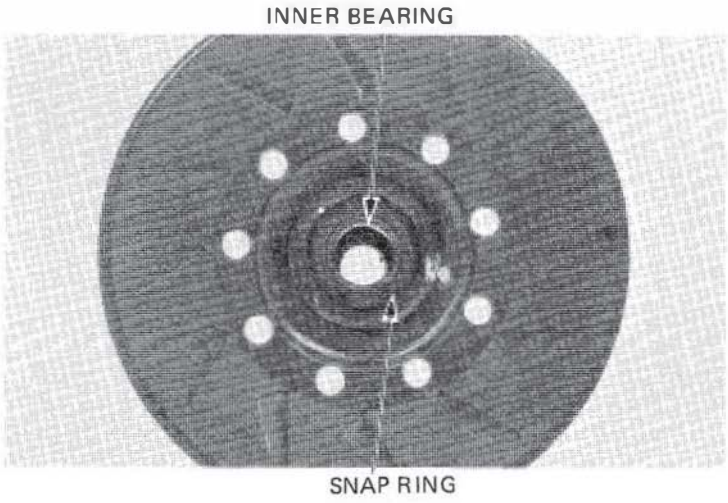
NOTE:

Specified grease:	Nippon Sekiyu LIPANOX DELUXE 3

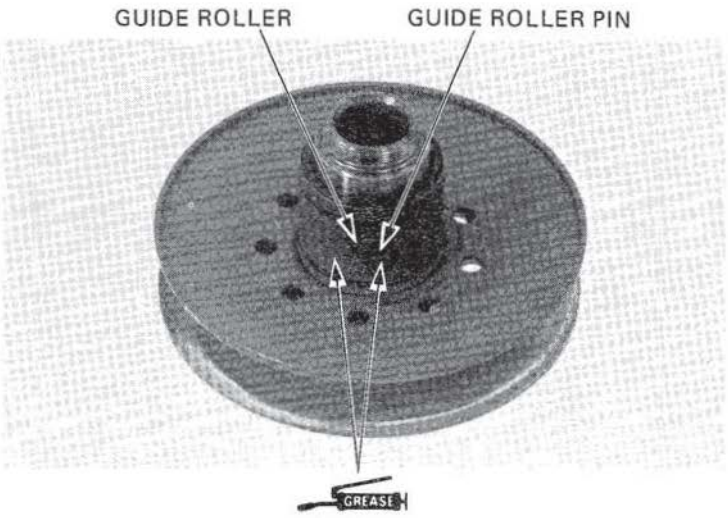


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

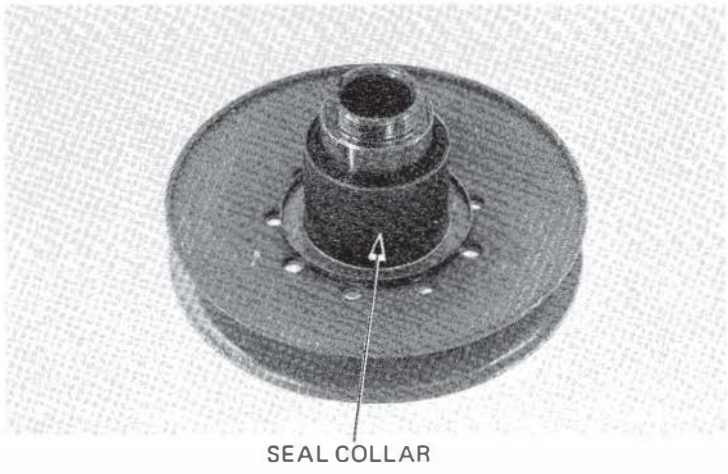
Using Driver (07749–0010000), 28 x 30 mm Attachment (07946–1870100, not available in U.S.A.) and 15 mm Pilot (07746–0040300), install the inner bearing in the movable driven face with the sealed end facing out.
Install the snap ring.



Install the movable driven face, guide roller and roller pin.



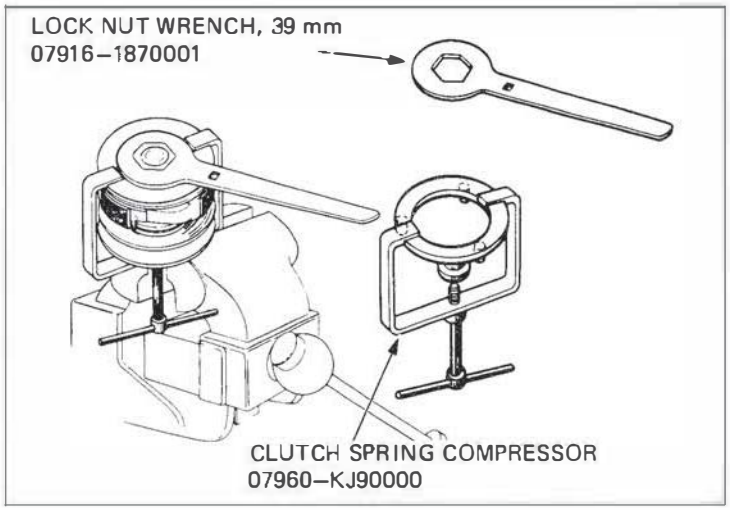
Install the seal collar.



© HONDA MOTOR CO., LTD.

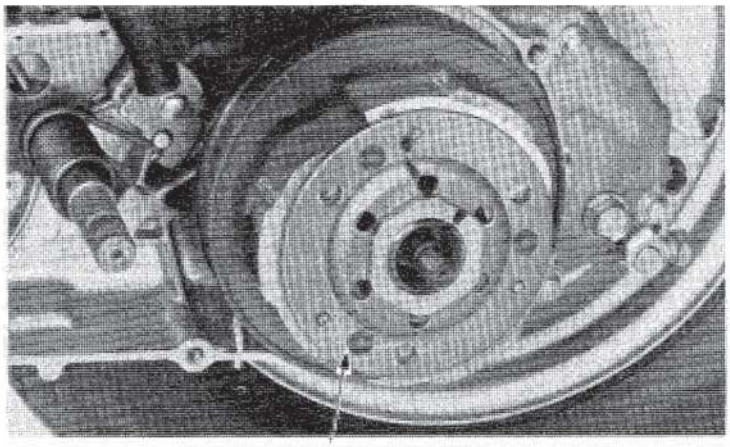
Position the driven face assembly, spring and guide plate assembly on the clutch spring compressor.
Compress the spring by turning the handle.
Install and tighten the 28 mm special nut.
Use a beam type torque wrench 12–14 inches long.

TORQUE: 35–40 N·m
(3.5–4.0 kg-m, 25–29 ft-lb)



CLUTCH/DRIVEN PULLEY INSTALLATION

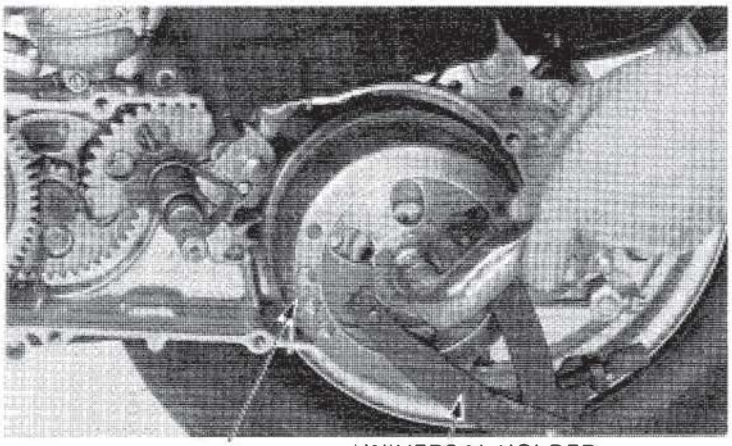
Install the driven pulley on the drive shaft.



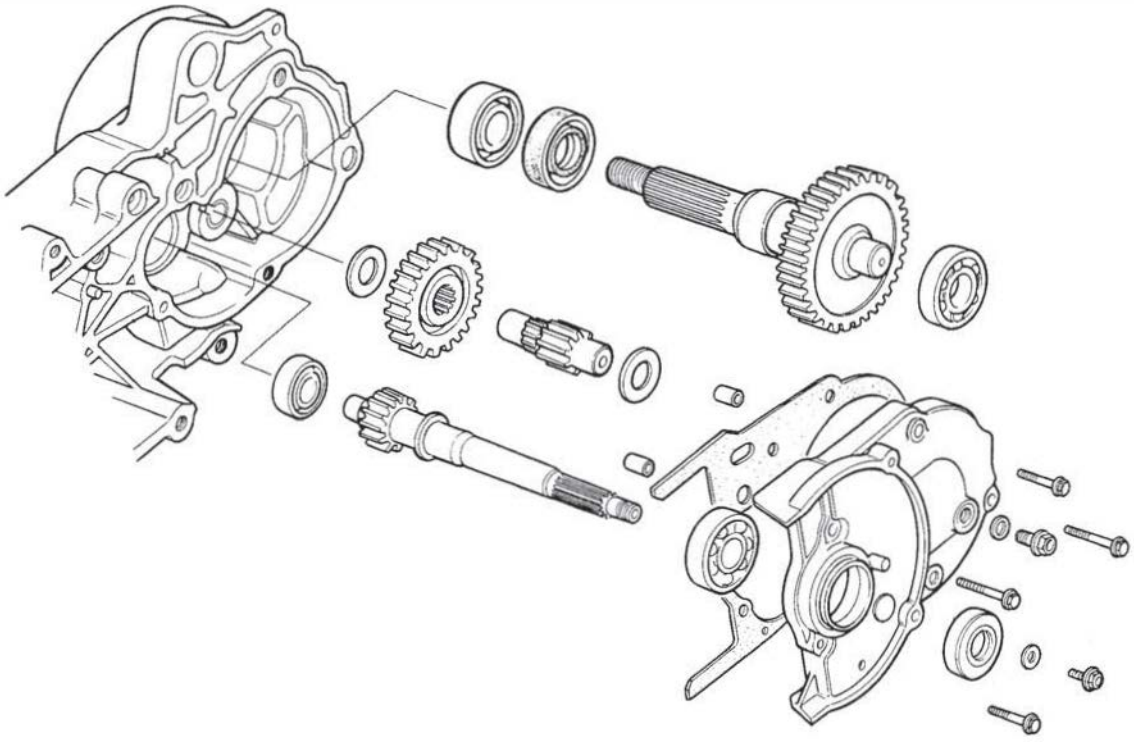
Install the clutch outer and torque the nut while holding the clutch outer with the universal holder.

TORQUE: 35–40 N·m
(3.5–4.0 kg-m, 25–29 ft-lb)

Install the driven face (Page 8-6).
Install the left case cover (Page 8-7).



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

9. FINAL REDUCTION

SERVICE INFORMATION

GENERAL

Specified oil	Honda 4-stroke oil SAE 10W–40 or equivalent
Oil quantity	90 cc (0.09 US qt)

TOOLS

Special	
Bearing remover set, 12 mm	07936–1660001 (not available in U.S.A.) or 07936–1660100
Bearing remover, 15 mm	07936–KC10000 (not available in U.S.A.) 07936–3710200
Common	
Attachment, 32 x 35 mm	07746–0010100
Attachment, 37 x 40 mm	07746–0010200
Pilot, 12 mm	07746–0040200
Pilot, 15 mm	07746–0040300
Pilot, 17 mm	07746–0040400
Driver	07749–0010000

TROUBLESHOOTING

Engine starts, but scooter won't move
1. Damaged transmission
2. Seized or burnt transmission

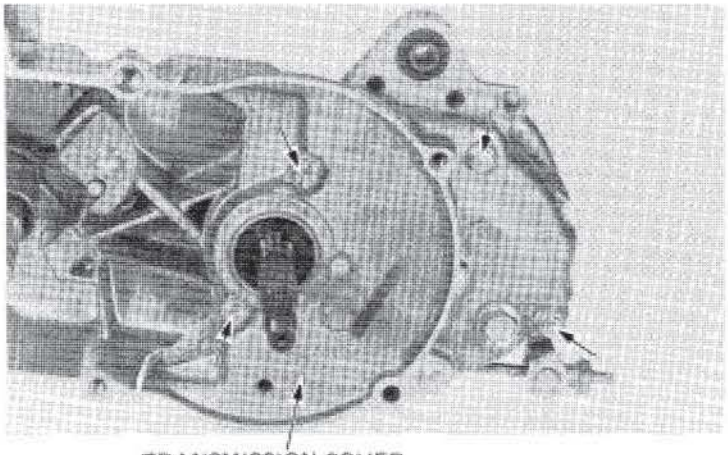
Abnormal noise
1. Worn, seized or chipped gears
2. Worn bearing

Oil leaks
1. Oil level too high
2. Worn or damaged oil seal

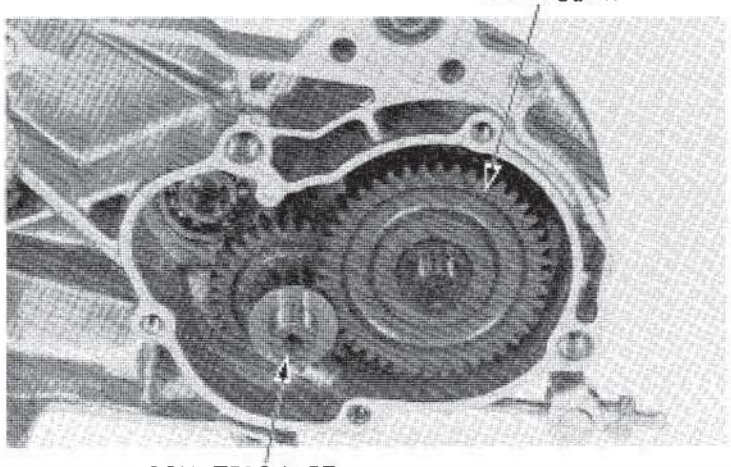
© HONDA MOTOR CO., LTD.

FINAL REDUCTION DISASSEMBLY

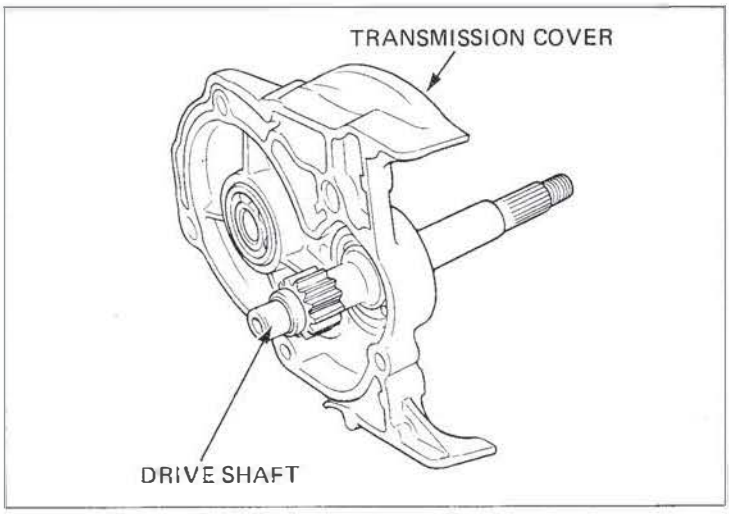
Remove the driven pulley (Page 8-2).
Drain the oil from the transmission case (Page 2-4).
Remove the rear wheel (Page 13-2).
Remove the transmission case cover bolts and remove the transmission cover.



Remove the final gear and countershaft.



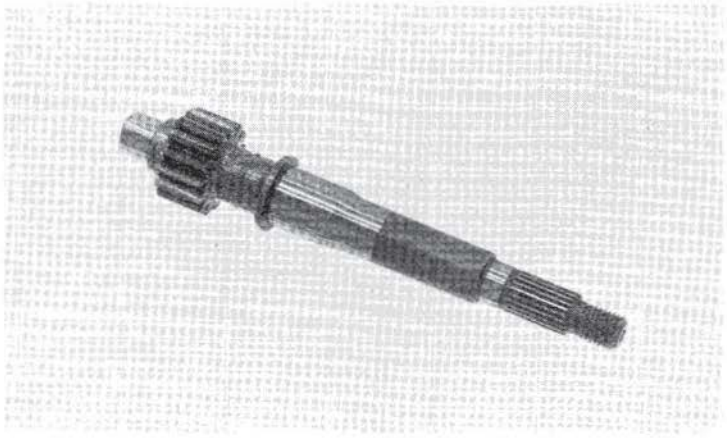
Remove the drive shaft from the transmission cover.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

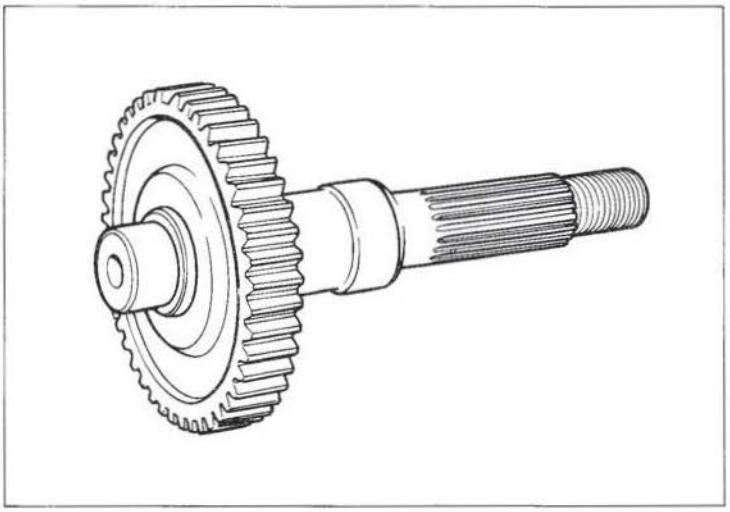
FINAL REDUCTION INSPECTION

Inspect the drive shaft and gear for wear or damage.



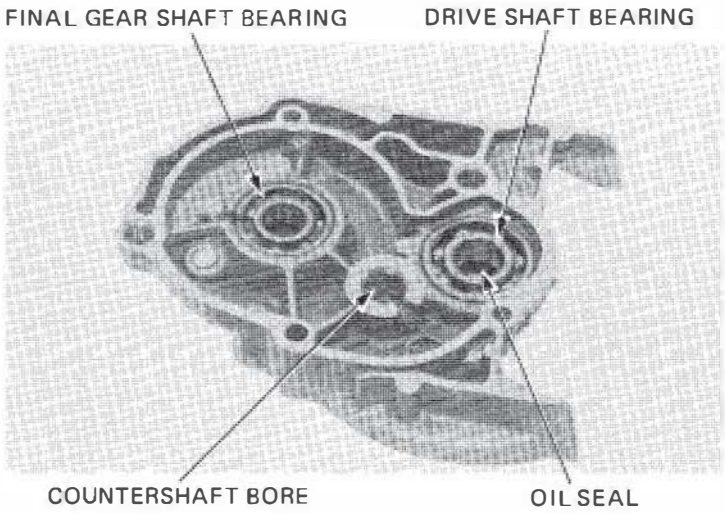
Inspect the countershaft and gear for wear or damage.

Inspect the final gear for wear or damage.

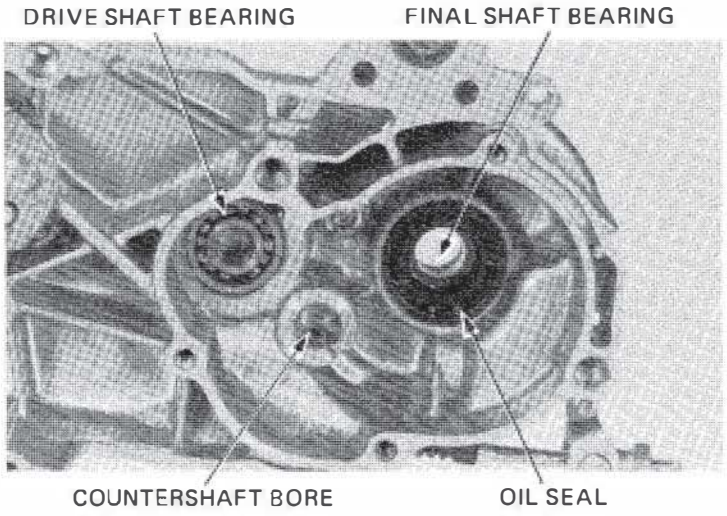


© HONDA MOTOR CO., LTD.

Inspect the transmission cover bearings, oil seal and countershaft bore for wear or damage.
If the final gear shaft bearing must be replaced, use 15mm Bearing Remover (07936—KC10000, not available in U.S.A.).

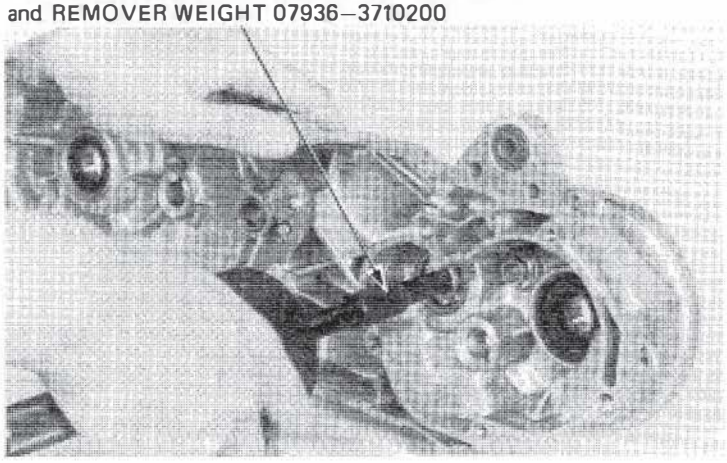


Inspect the left crankcase bearings, oil seal and countershaft bore for wear or damage.



Use the bearing remover if drive shaft bearing replacement is necessary.

BEARING REMOVER SET, 12 mm
07936—1660000 (Not available in U.S.A.) or
BEARING REMOVER, 12 mm 07936—1660100
and REMOVER WEIGHT 07936—3710200



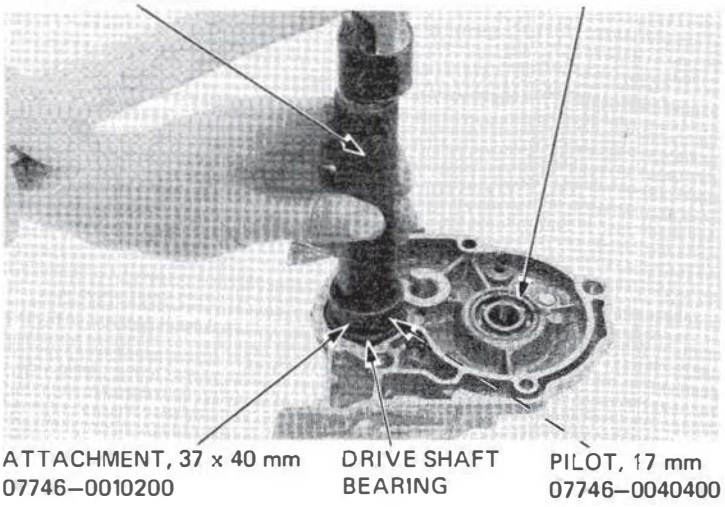
© HONDA MOTOR CO., LTD.

FINAL REDUCTION INSTALLATION

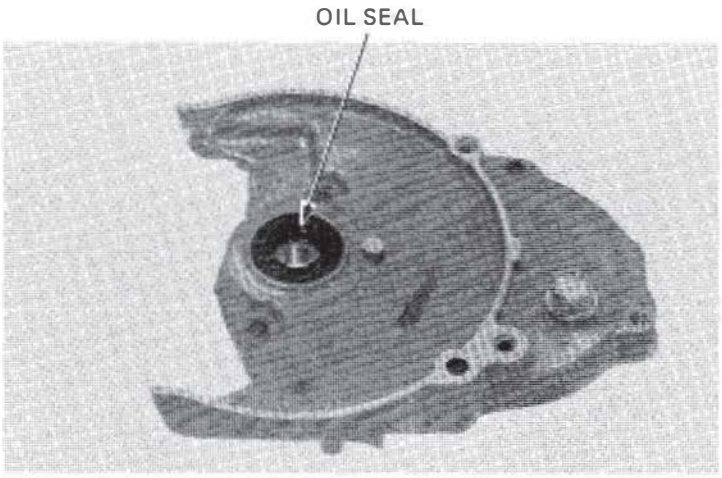
Install the drive shaft bearing in the transmission cover.

Install the final gear shaft bearing in the transmission cover using the following tools:

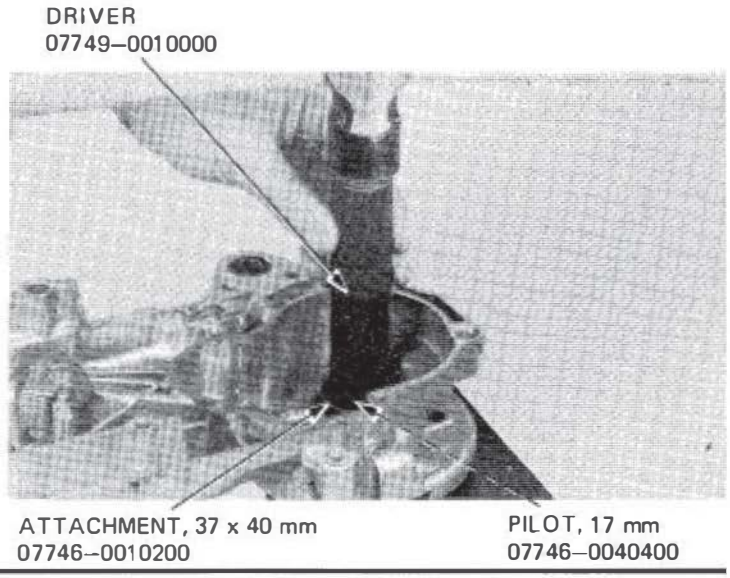
Driver	07749–0010000
Attachment, 32 x 35 mm	07746–0010100
Pilot, 15 mm	07746–0040300



Install a new oil seal in the transmission cover.

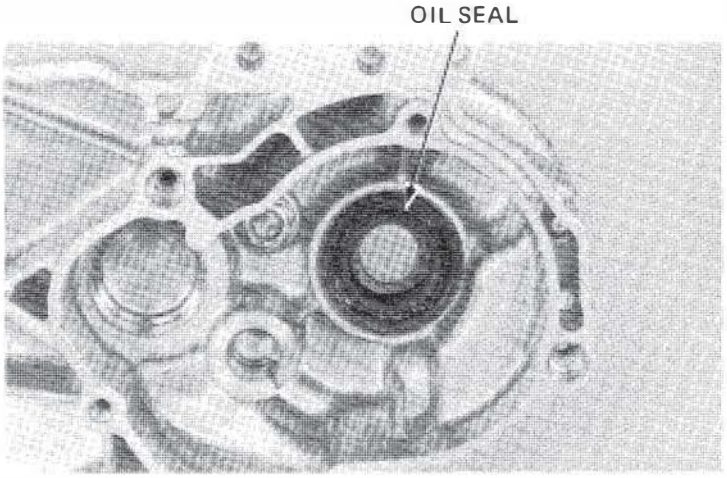


Drive the final shaft bearing into the left case.

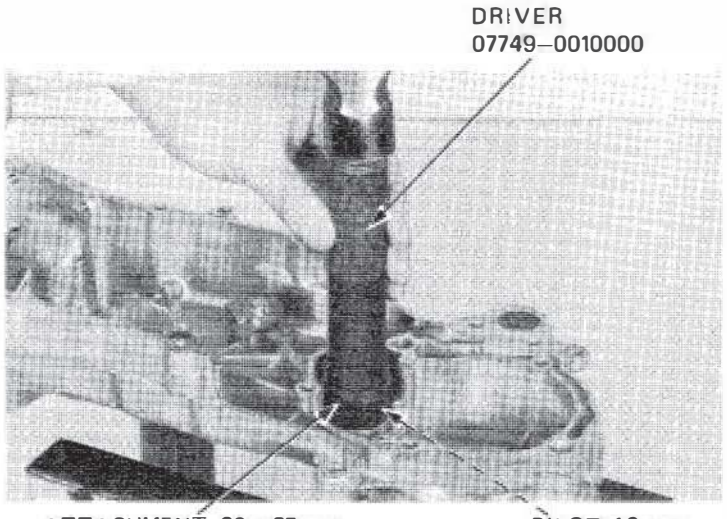


© HONDA MOTOR CO., LTD.

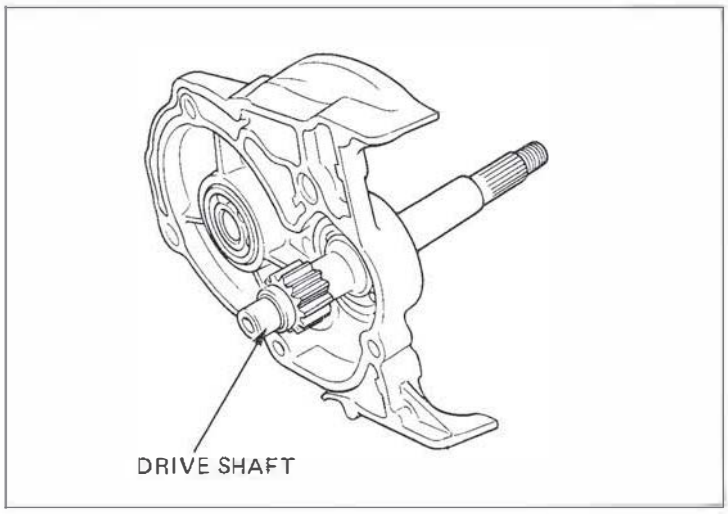
Install a new final shaft oil seal.



Install the drive shaft bearing into the left case.

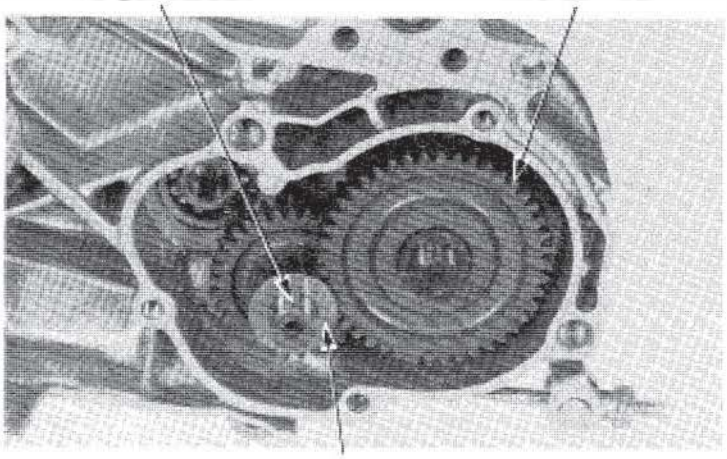


Slide the drive shaft through the bearing from the inside.

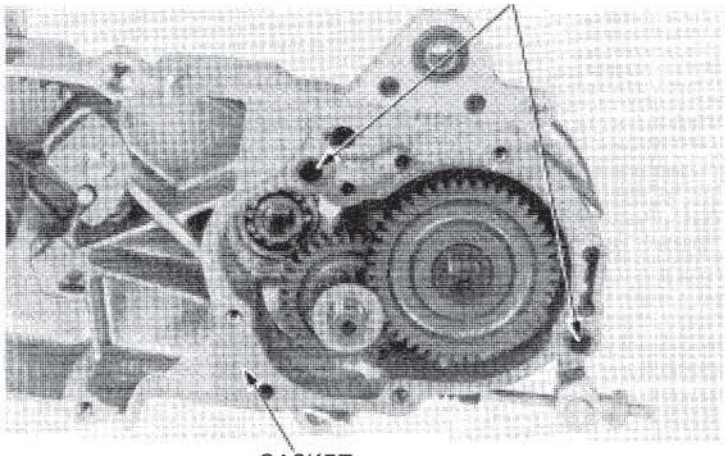


Date of issue: May, 1983
© HONDA MOTOR CO., LTD.

Install the countershaft, final gear and thrust washer.

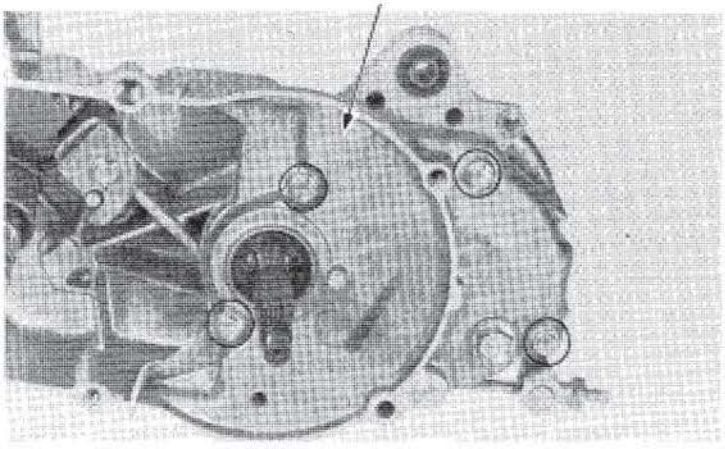


Install a new gasket and dowel pins.

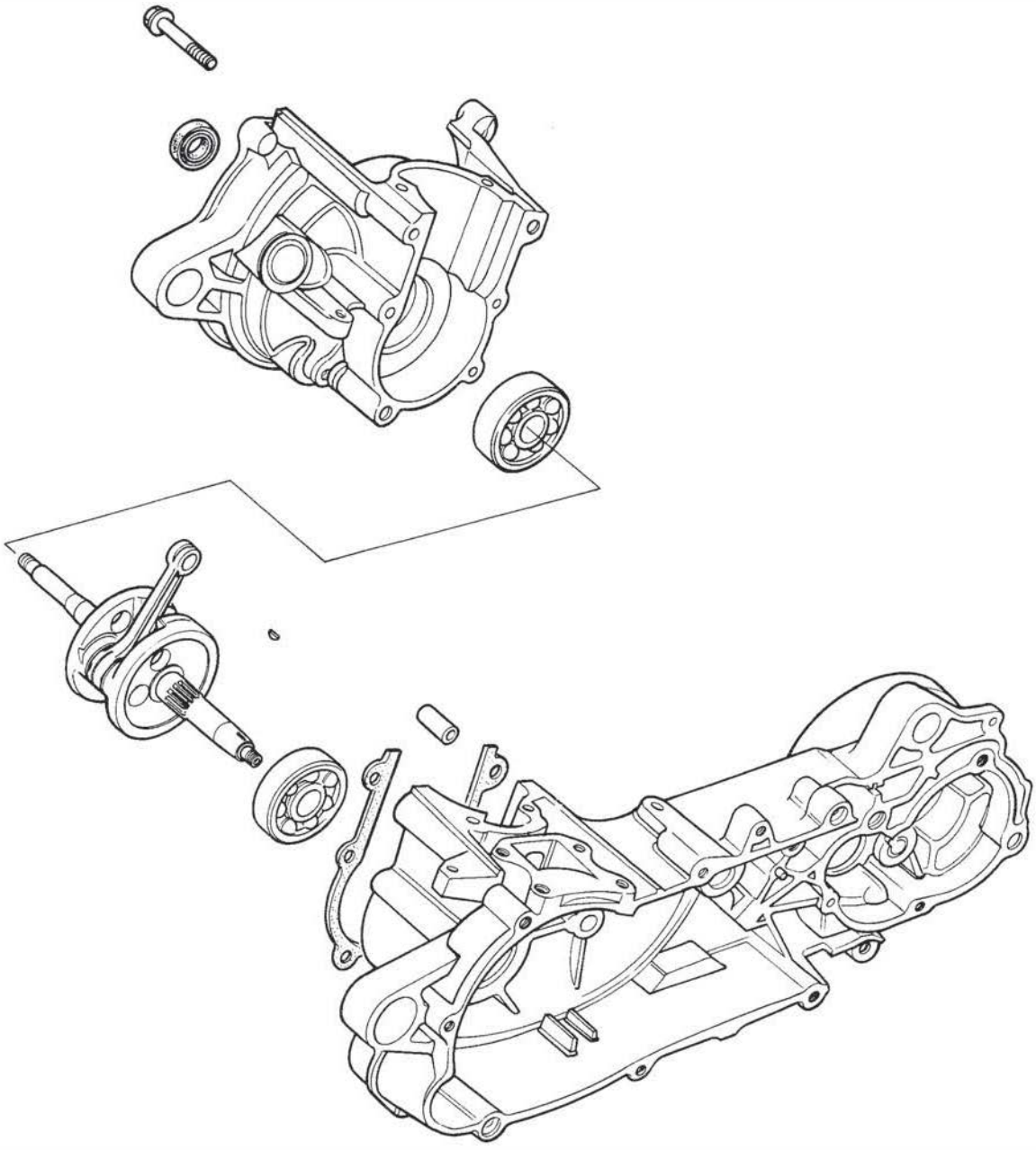


Install the transmission cover.
Install the movable driven face/clutch assembly (Page 8-22).
Install the drive pulley, drive belt and left case cover (Page 8-7).
Install the frame center cover (Section 11).
Install the rear wheel (Page 13-3).

Pour the specified amount of oil through the filler opening (Page 2-4).



© HONDA MOTOR CO., LTD.



© HONDA MOTOR CO., LTD.

10. CRANKCASE/CRANKSHAFT

SERVICE INFORMATION

GENERAL

- This section covers crankcase separation to service the crankshaft.
- The following parts must be removed before separating the crankcase:
  - Engine Page 5-2
  - Carburetor Page 4-3
  - Oil pump Page 2-2
  - Reed valve Page 4-12
  - Drive pulley Page 8-2
  - Alternator Page 7-2
  - Cylinder head, cylinder Page 6-2
- In addition to the above, remove the following parts when the left crankcase half must be replaced:
  - Final reduction Page 9-2
- When assembling the crankcase and crankshaft, force the crankshaft into the case bore with the special tool rested against the crankshaft bearing inner race. To do this, it is necessary to remove the old bearing from the crankshaft and drive a new bearing onto the crankshaft on the case side. Use a new oil seal after assembling the crankcase.

10

SPECIFICATIONS

ITEM	STANDARD	SERVICE LIMIT
Connecting rod big end side clearance	–	0.5 mm (0.02 in)
Connecting rod big end radial clearance	–	0.04 mm (0.0016 in)
Crankshaft runout	–	0.10 mm (0.004 in)

TOOLS

Special

Seal and case assembling tool	07965–GC70000 or — Assembly collar 07965–GC70100 └ Assembly tool 07965–1480001
Universal bearing puller	07631–0010000 (not available in U.S.A.)
Crankcase puller	07935–KG80000

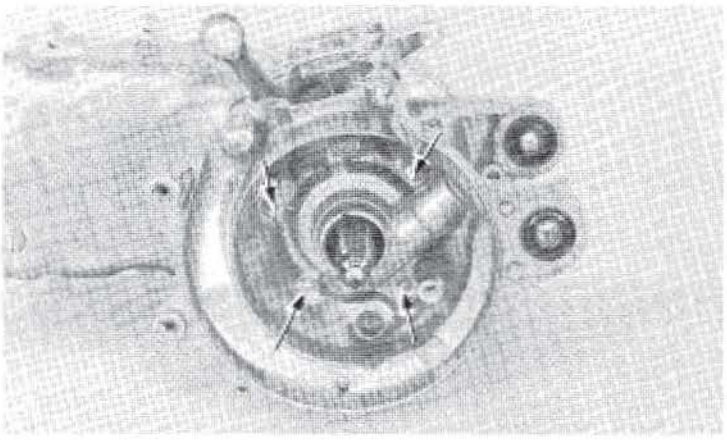
Common

Driver	07749–0010000
Attachment, 42 x 47 mm	07746–0010300
Pilot, 25 mm	07746–0040600

© HONDA MOTOR CO., LTO.

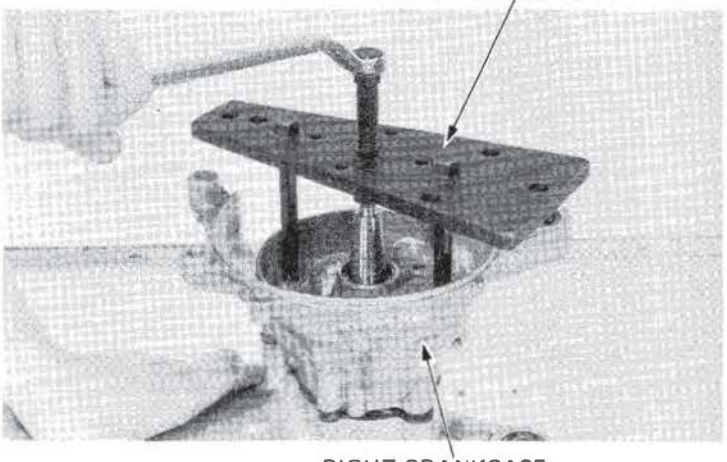
CRANKCASE SEPARATION

Remove the crankcase attaching bolts.



Attach the crankcase puller on the right crankcase as shown with the two special long bolts.

Separate the right crankcase half.

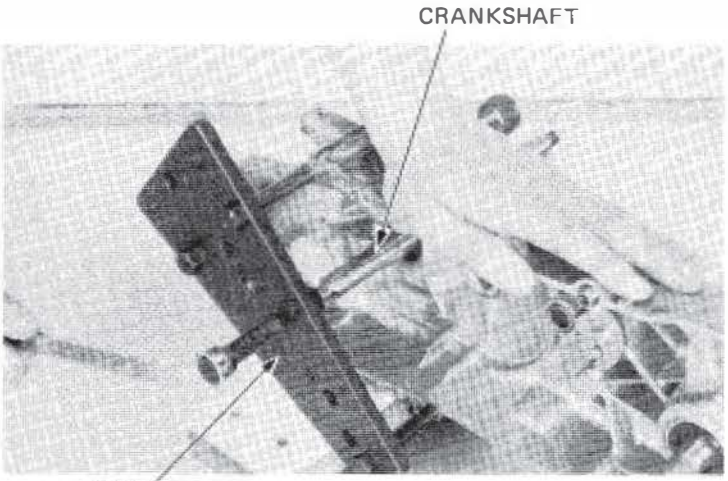


CRANKSHAFT REMOVAL

Attach the special tool on the left crankcase as shown with the three special short bolts.
Remove the crankshaft.

CAUTION:

Do not drive the crankshaft out with a hammer.



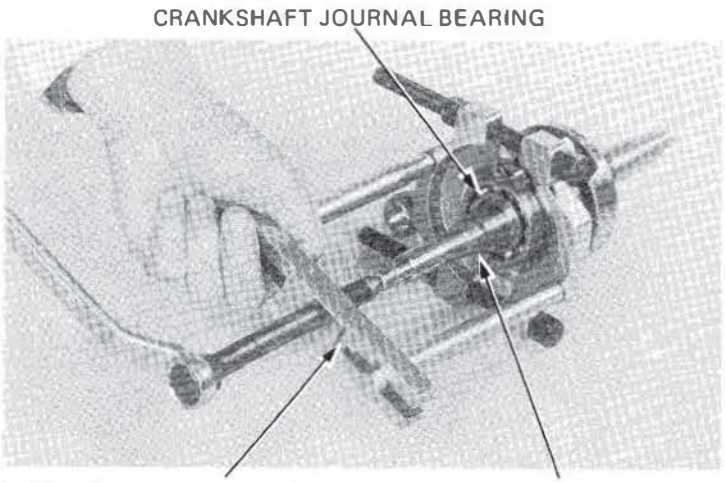
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Remove the journal bearing from the crankshaft with the bearing puller.

Remove the right and left oil seals.

NOTE:

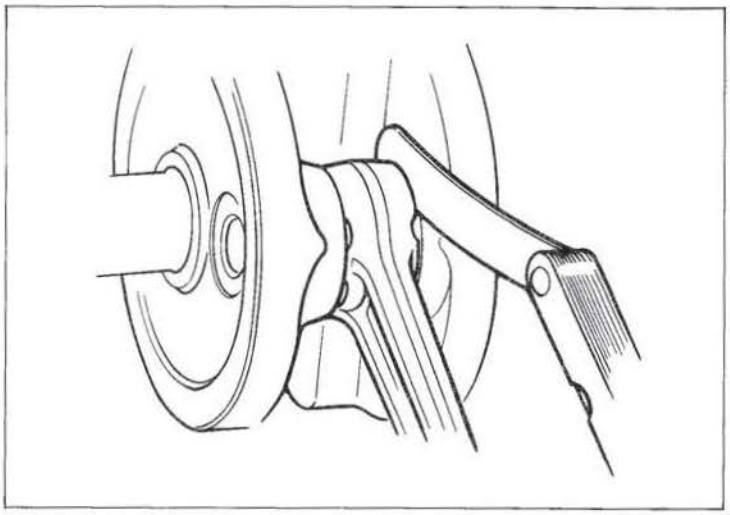
> Replace the oil seals with new ones whenever disassembled.



CRANKSHAFT INSPECTION

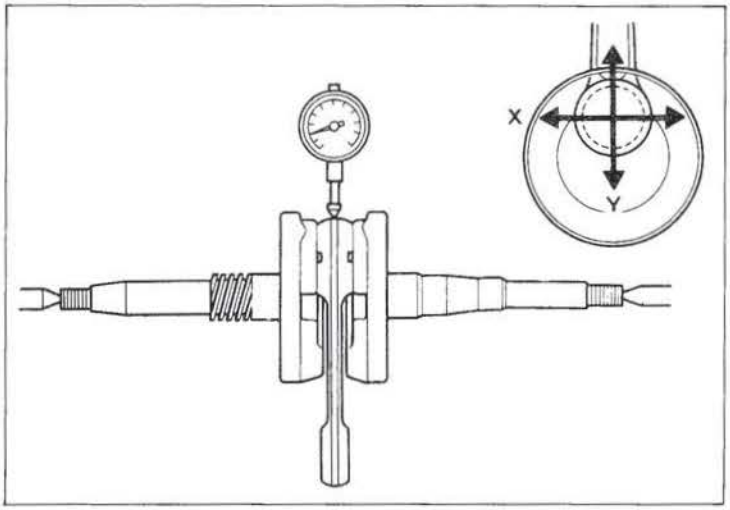
Measure the connecting rod big end side clearance with a feeler gauge.

SERVICE LIMIT: 0.5 mm (0.02 in)



Measure the connecting rod big end radial clearance at two points in the X and Y directions.

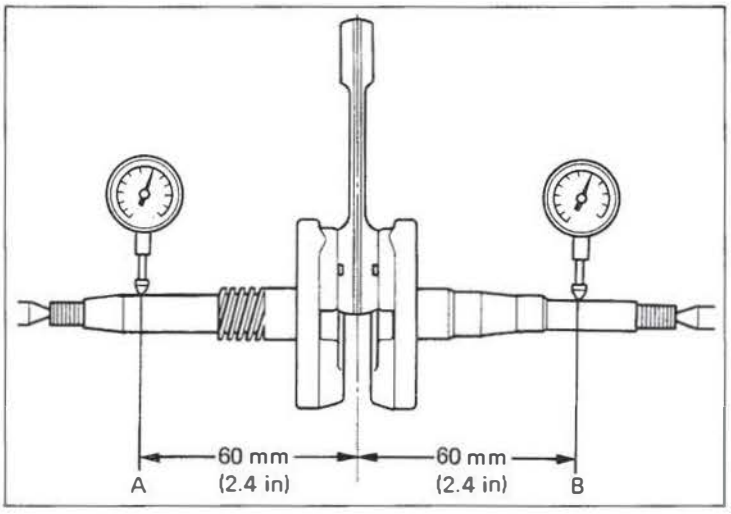
SERVICE LIMIT: 0.04 mm (0.0016 in)



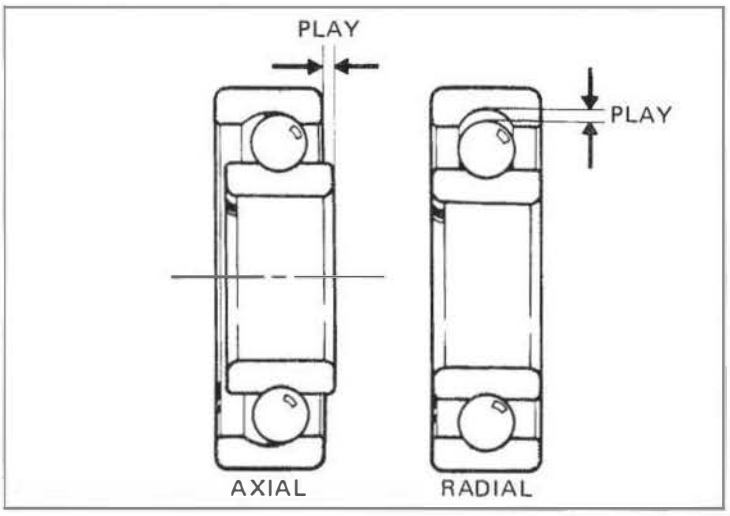
© HONDA MOTOR CO., LTD.

Set the crankshaft on a stand or in V blocks and read runout at points A and B using a dial gauge.

SERVICE LIMITS: A: 0.10 mm (0.004 in)
B: 0.10 mm (0.004 in)



Spin the crankshaft bearing by hand and check for play. The bearing must be replaced if it is noisy or has excessive play.

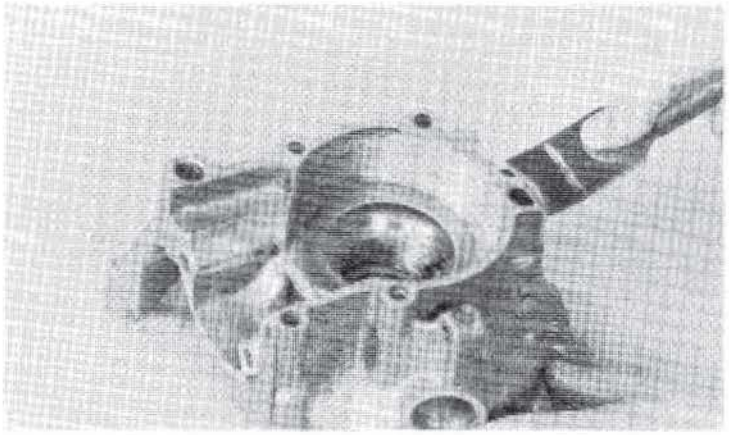


CRANKSHAFT INSTALLATION

Wash the crankshaft in solvent and blow dry with compressed air. Check for cracks or other faults.

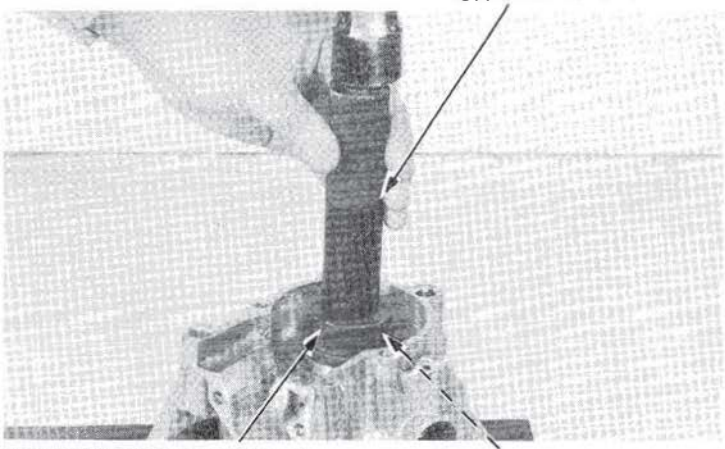
NOTE:

- Apply clean engine oil to all moving and sliding surfaces.
- Remove all gasket materials from the crankcase mating surfaces. Dress any roughness or irregularities with an oil stone.

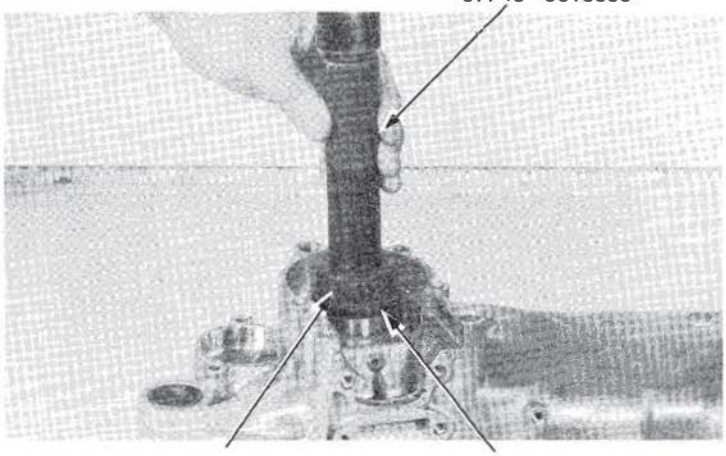


© HONDA MOTOR CO., LTO.

Drive a new journal bearing into the right crankcase.

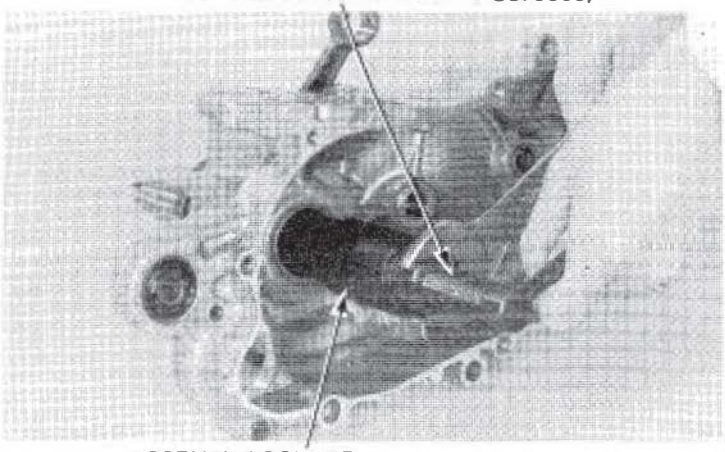


Drive a new journal bearing into the left crankcase.



Install the crankshaft into the left crankcase.

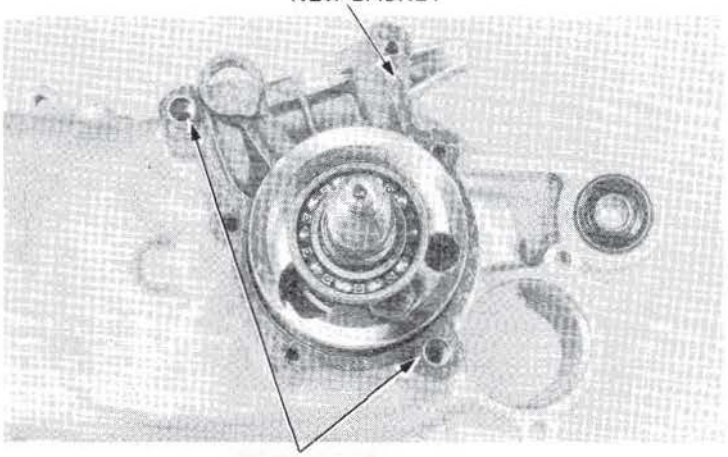
Position Collar (07965–GC70100) with the small O.D. against the crankshaft bearing.
Thread the bolt from Assembly Tool (07965–1480200) onto the crankshaft.
Hold the bolt and turn the nut clockwise to fully install the crankshaft.
Lubricate the crankshaft main and journal bearings with Honda 2-stroke oil or equivalent.



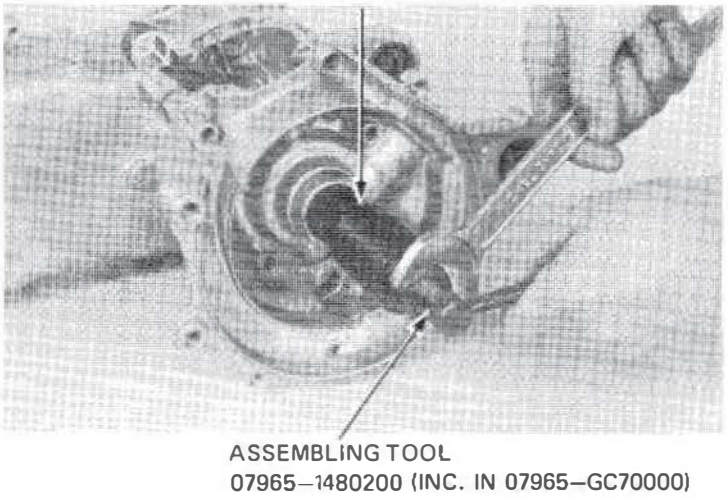
© HONDA MOTOR CO., LTD.

CRANKCASE ASSEMBLY

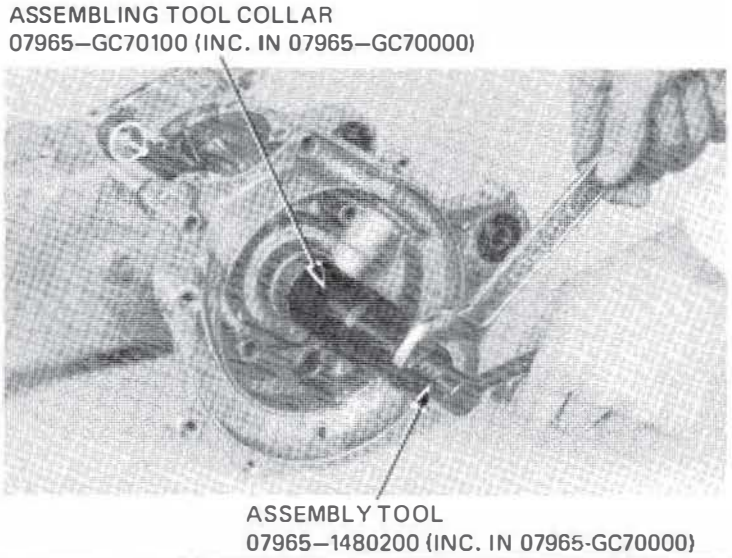
Install a new gasket and dowel pins on the crankcase mating surface.



Assemble the crankcase halves; place the collar (07965—GC70100) with the small O.D. against the right crankshaft bearing. Thread the bolt from assembly tool (07965—1480200) onto the crankshaft. Hold the bolt and turn the nut clockwise to draw the crankcase halves together.

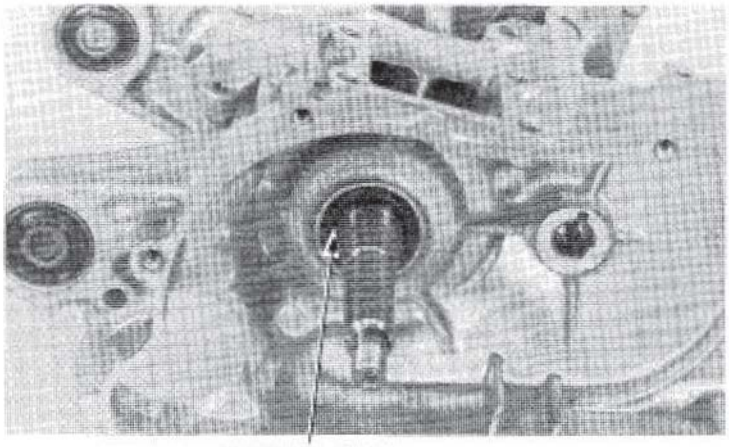


Install the right oil seal; place the collar (07965—GC70100) so its stepped end is against the crankcase and oil seal.
Thread the bolt from assembly tool (07965—1480200) onto the crankshaft. Hold the bolt and turn the nut clockwise to install the oil seal into place.



© HONDA MOTOR CO., LTD.

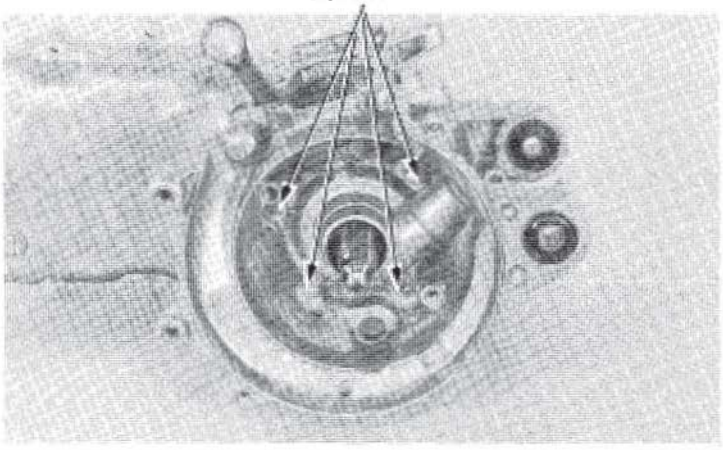
Drive the oil seal into the left crankcase until it is flush with the case.



LEFT OIL SEAL

Install and tighten the crankcase bolts.

BOLTS

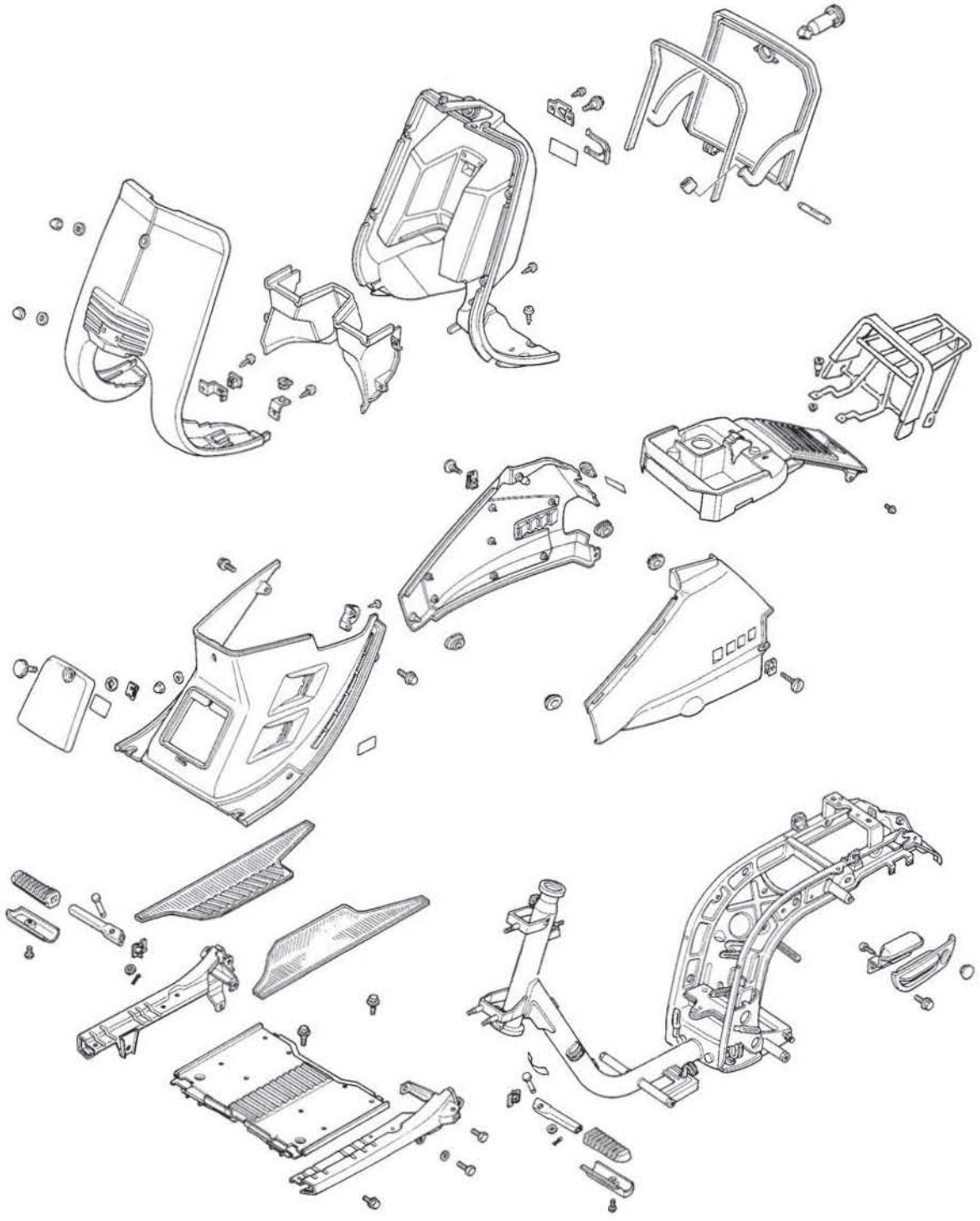


NOTE:

> Make sure that the crankshaft rotates freely after tightening the bolts.

Install the following:
- Final reduction (Page 9-5).
- Alternator (Page 7-4).
- Piston, cylinder and cylinder head (Page 6-7).
- Drive and driven pulleys (Page 8-6, 8-22).
- Oil pump (Page 2-2).
- Reed valve and carburetor (Page 4-12, 4-7).
- Engine (Page 5-4).

© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

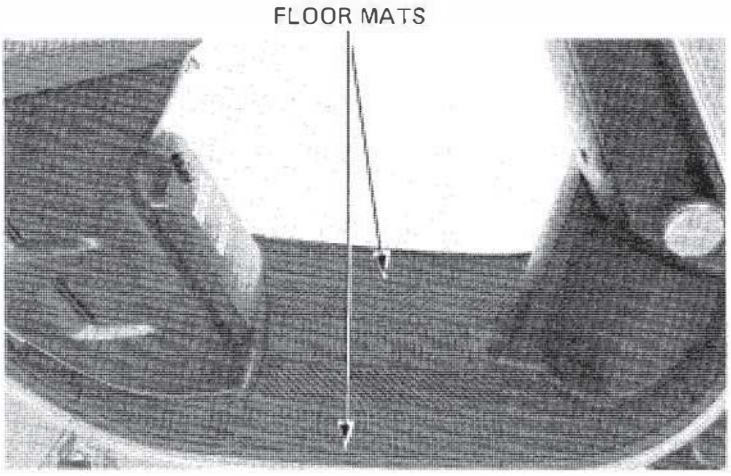
11. FRAME COVERS

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

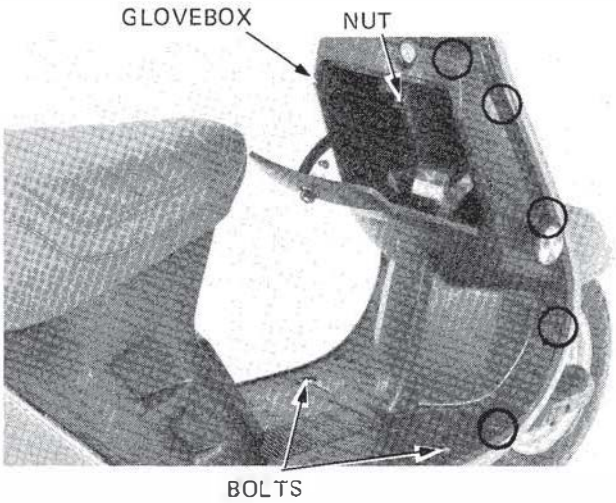
FRAME COVER REMOVAL

GLOVEBOX/FLOOR PLATE REMOVAL

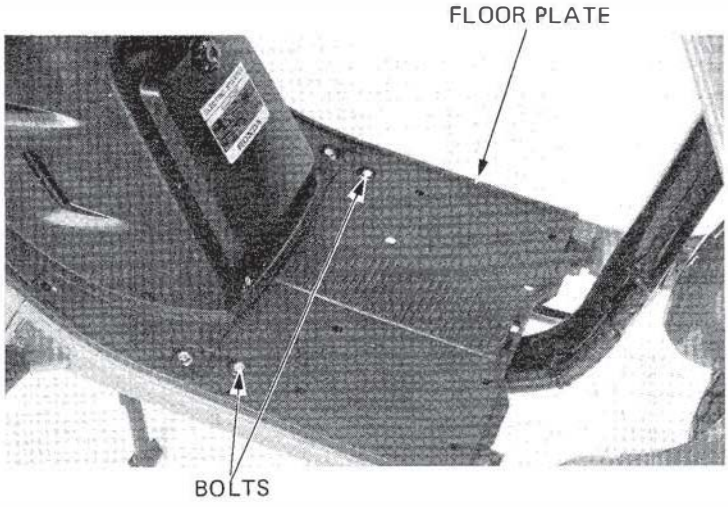
Remove the floor mats.



Open the glovebox lid and remove the glovebox by unscrewing the nut, two bolts and ten screws.



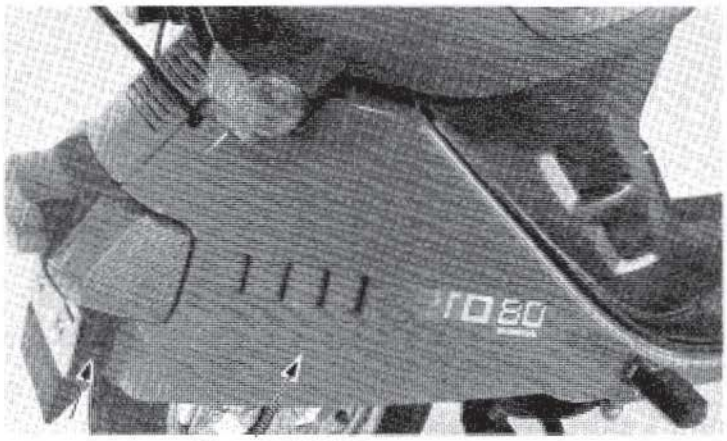
Remove the two bolts attaching the floor plate and remove the floor plate.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

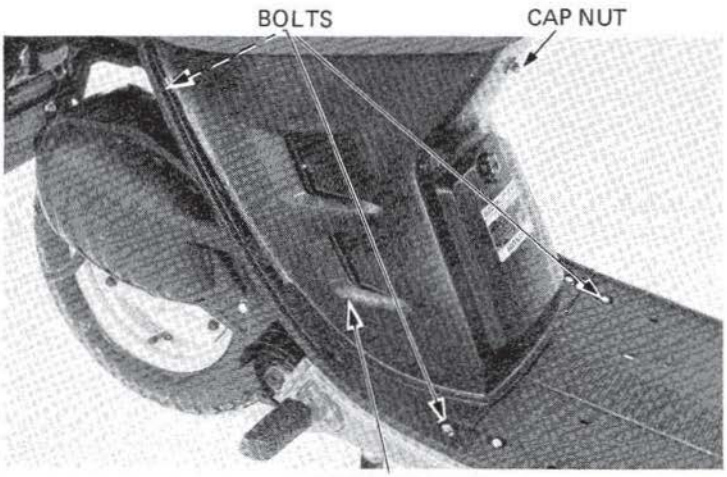
FRAME CENTER COVER REMOVAL

Remove the right and left frame covers.
Remove the floor mats.



FRAME COVER

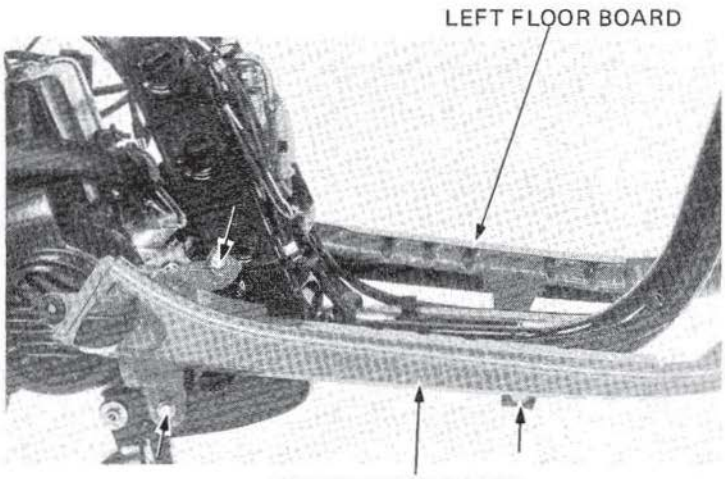
Remove the four bolts and cap nut and remove the frame center cover.



CENTER COVER

RIGHT AND LEFT FLOOR BOARD REMOVAL

Remove the glovebox and floor plate (Page 11-2).
Remove the frame center cover.
Remove the right and left floor boards.



RIGHT FLOOR BOARD

© HONDA MOTOR CO., LTD.

12. STEERING/FRONT WHEEL/ BRAKE/SUSPENSION

SERVICE INFORMATION

SPECIFICATIONS

ITEM		STANDARD	SERVICE LIMIT
Axle shaft runout		—	0.2 mm (0.01 in)
Rim runout	Radial	—	2.0 mm (0.08 in)
	Axial	—	2.0 mm (0.08 in)
Cushion spring free length		225.8 mm (8.89 in)	219.0 mm (8.62 in)
Front brake drum I.D.		110.0 mm (4.33 in)	111.0 mm (4.37 in)
Brake lining thickness		4.0 mm (0.156 in)	2.0 mm (0.08 in)

12

TORQUE VALUES

Steering stem nut	80–120 N·m (8.0–12.0 kg-m, 58–87 ft-lb)
Front axle nut	50–70 N·m (5.0–7.0 kg-m, 36–51 ft-lb)
Front shock mount bolt	30–36 N·m (3.0–3.6 kg-m, 22–26 ft-lb)
Front fork pivot arm	20–24 N·m (2.0–2.4 kg-m, 14–17 ft-lb)
Front brake arm	8–12 N·m (0.8–1.2 kg-m, 6–9 ft-lb)

TOOLS

Common

Rear shock absorber compressor	07959–3290001
Driver	07749–0010000
Attachment, 32 x 35 mm	07746–0010100
Attachment, 42 x 47 mm	07746–0010300
Pilot, 12 mm	07746–0040200
Extension	07716–0020500 — Equivalent tools commercially available in U.S.A.
Lock nut wrench, 30 x 32 mm	07716–0020400 — Equivalent tools commercially available in U.S.A.
Fork seal driver	07747–0010100 — or Fork seal driver 07947–3550000
Fork seal driver attachment	07747–0010400 — or Fork seal driver 07947–3550000
Pin spanner	07702–0020000, 07702–0010000 or M9361–412–099788 (U.S.A. only)

© HONDA MOTOR CO., LTD.

TROUBLESHOOTING

Hard steering
1. Steering stem nut too tight
2. Steering stem bearings damaged
3. Steering ball and cone races damaged
4. Insufficient tire pressure

Steers to one side or does not track straight
1. Uneven front shocks
2. Bent front fork
3. Bent front axle

Front wheel wobbling
1. Bent rim
2. Axle nut tightened improperly
3. Bent spoke plate
4. Faulty or unevenly worn tire
5. Excessive wheel bearing play

Soft suspension
1. Weak fork springs

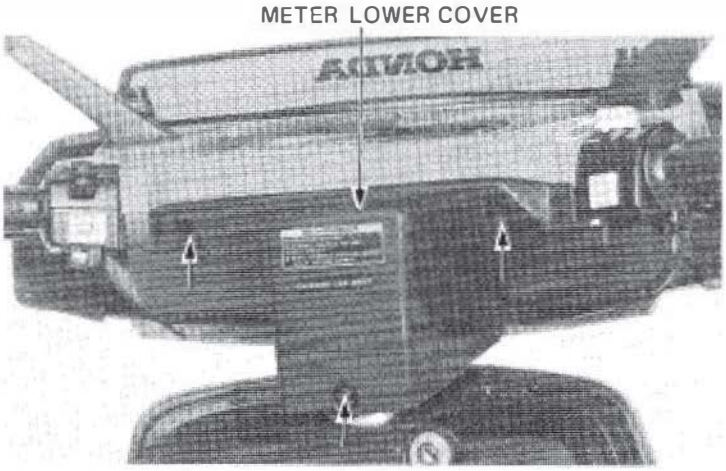
Front suspension noise
1. Fork link binding
2. Loose front fork fasteners

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

SPEEDOMETER

SPEEDOMETER REMOVAL

Remove the meter lower cover by backing off the one bolt and two screws.

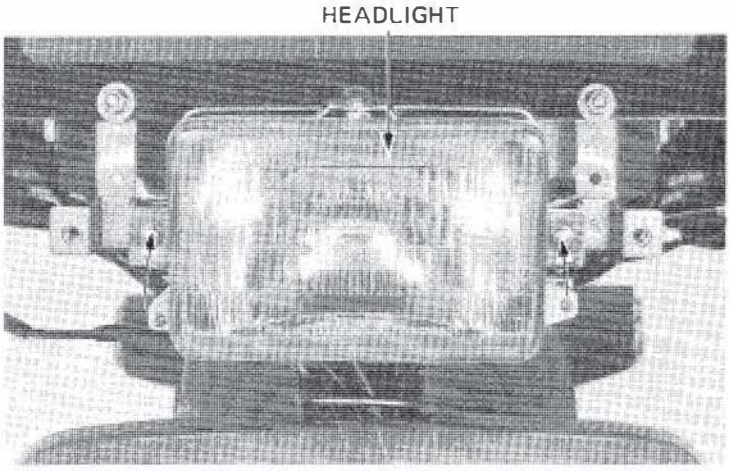


Remove the right and left headlight covers by removing the screws.

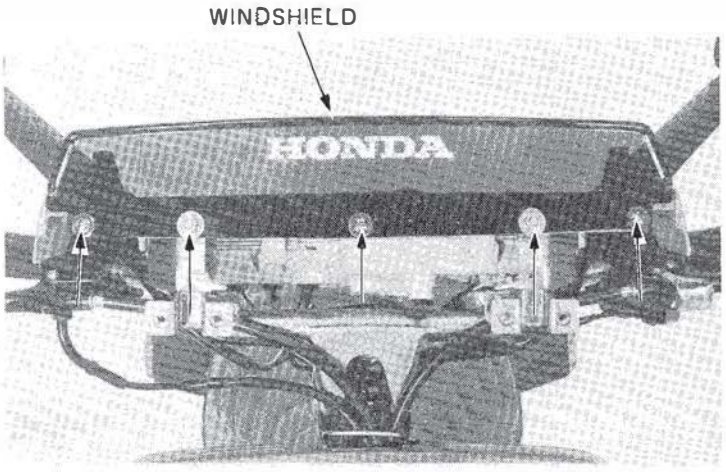
Disconnect the front turn signal wires.
Remove the two bolts attaching the handlebar front cover and remove the front cover with the right and left front turn signals.

© HONDA MOTOR CO., LTD.

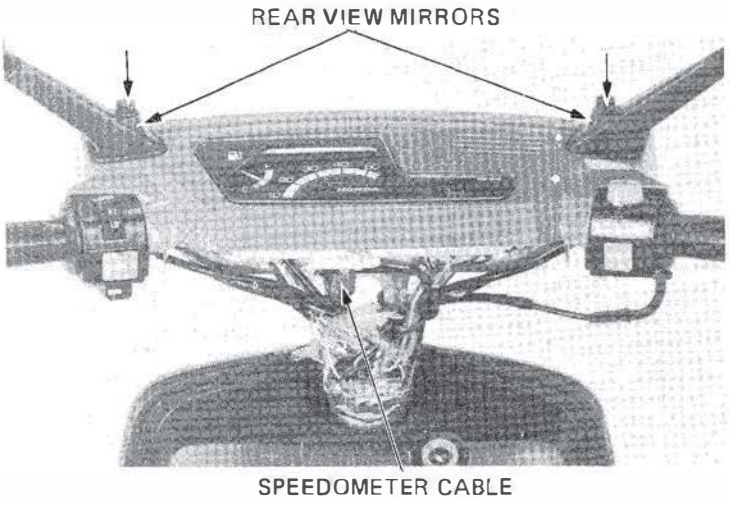
Disconnect the headlight wires.
Remove the two bolts and headlight.



Remove the windshield by removing the three screws and two nuts.



Disconnect the meter wires and the speedometer cable.
Remove the rear view mirrors and meter cluster assembly.

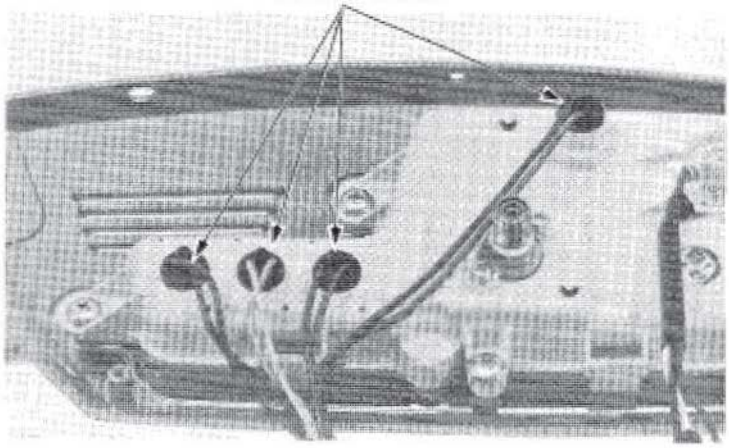


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

BULB REPLACEMENT

Remove the sockets and replace the bulbs with new ones.

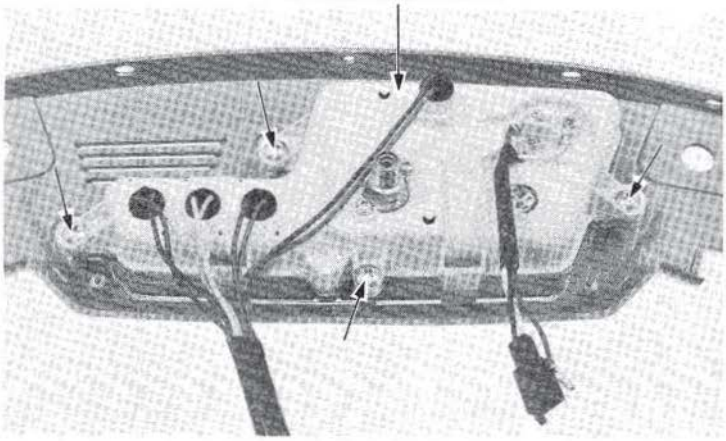
BULB SOCKETS



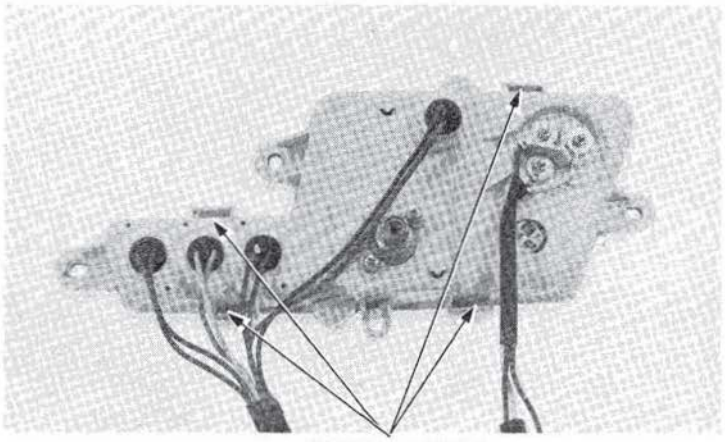
METER DISASSEMBLY

Remove the four screws and remove the meter assembly.

METER ASSEMBLY



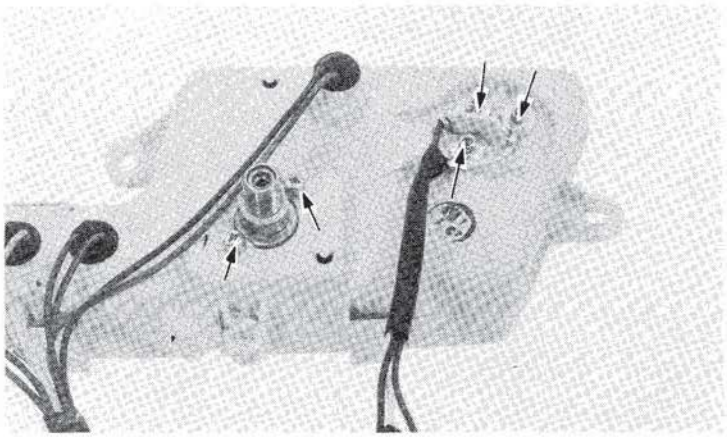
Remove the meter cover.
Remove the indicator panel by releasing the locking pawls.



LOCKING PAWLS

© HONDA MOTOR CO., LTD.

Remove the meter from the case by removing the three nuts and two screws.



METER ASSEMBLY/INSTALLATION

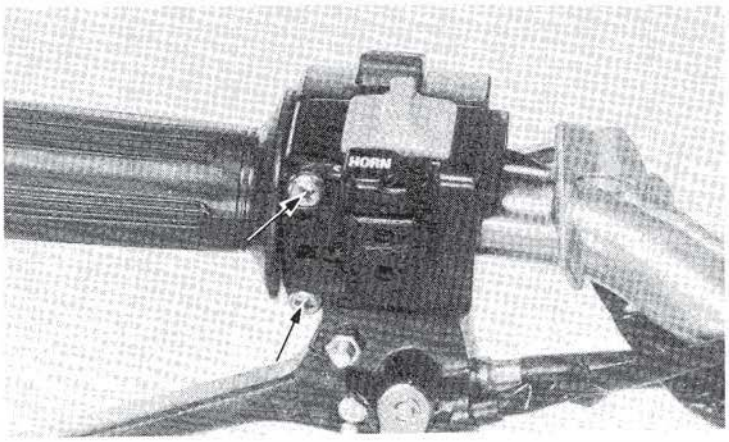
The assembly and installation sequence is essentially the reverse order of disassembly and removal.

HANDLEBAR

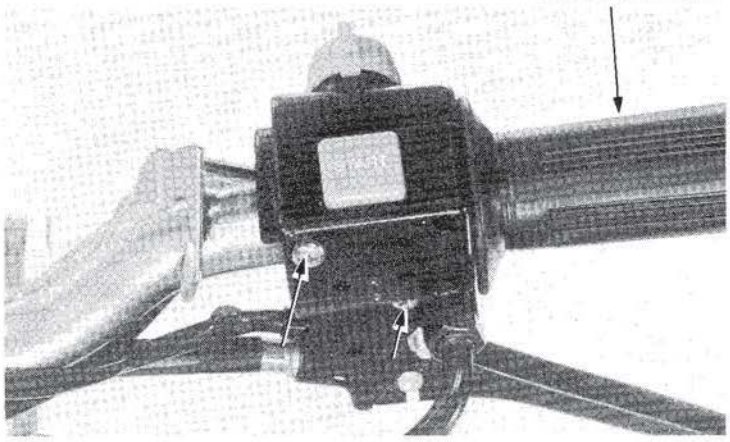
REMOVAL

Remove the meter assembly (Page 12-3).

Remove the left handlebar switch by removing the two screws.

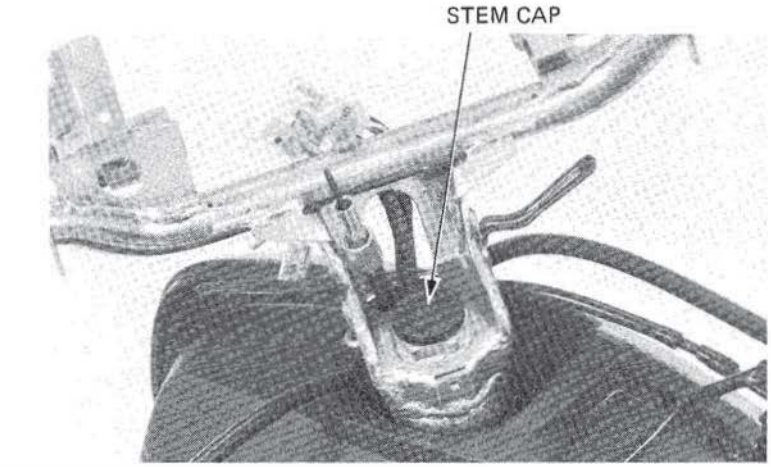


Remove the right handlebar switch by removing the two screws.
Disconnect the throttle cable from the throttle grip and remove the throttle grip from the handlebar.



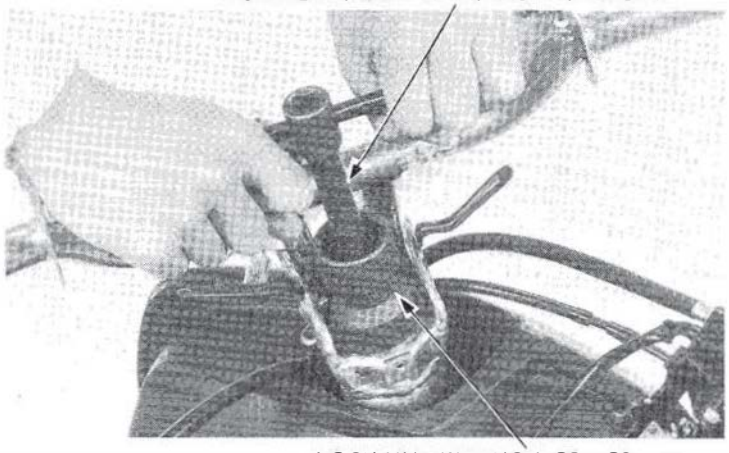
©HONDA MOTOR CO., LTD.

Remove the steering stem cap.



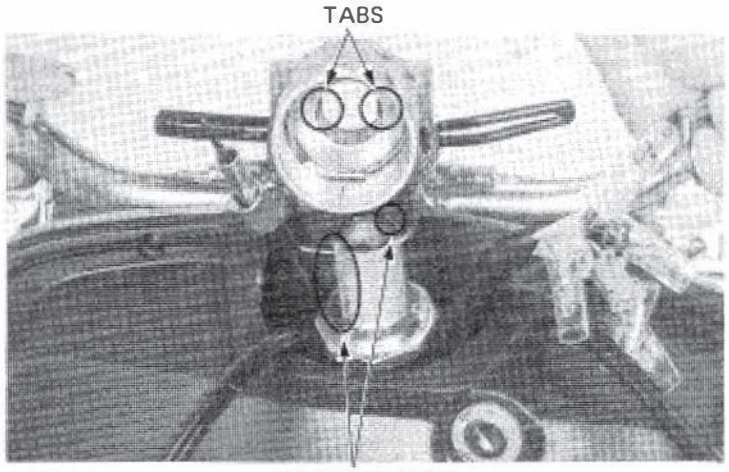
Remove the steering stem nut.

Remove the handlebar.



INSTALLATION

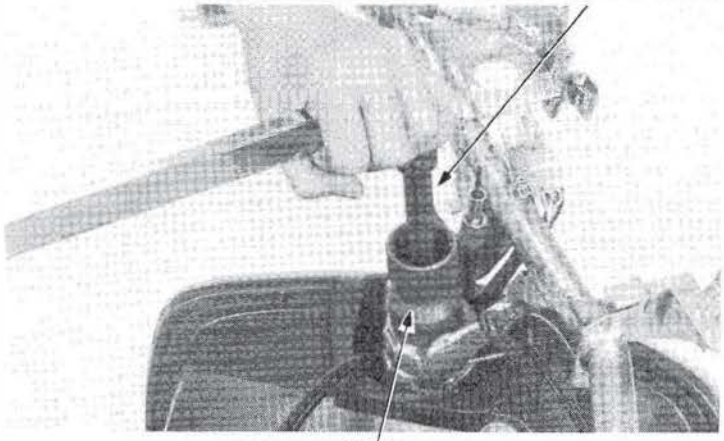
Install the handlebar, aligning the tabs of the handlebar bracket with the grooves in the steering stem.



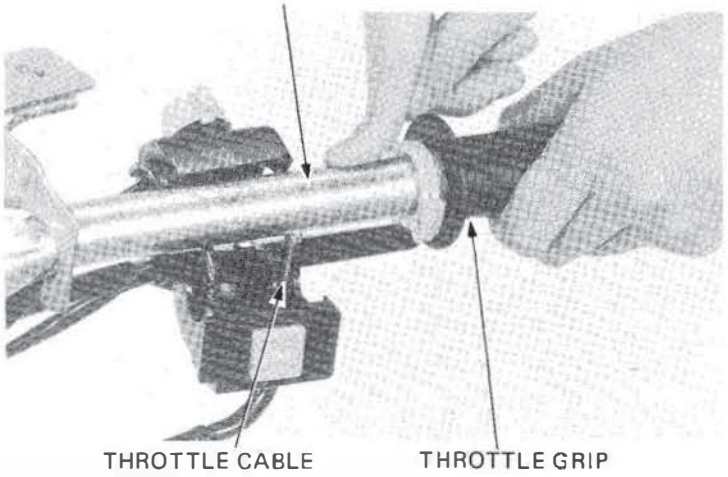
© HONDA MOTOR CO., LTD.

Torque the steering stem nut.

TORQUE: 80–120 N·m (8.0–12.0 kg-m, 58–87 ft-lb)



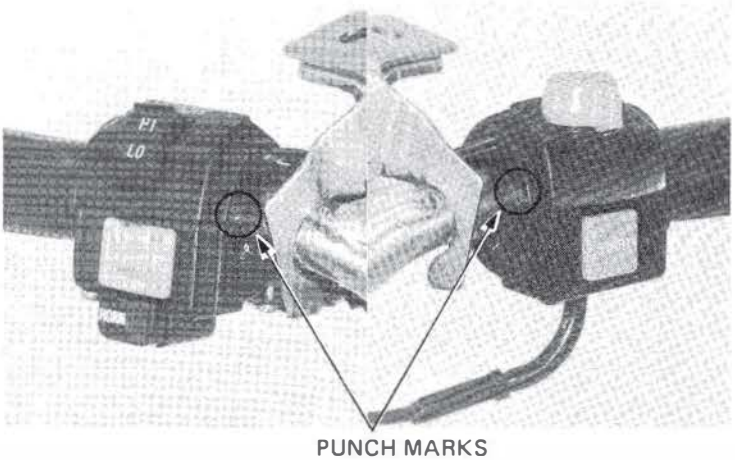
Apply grease to the throttle grip area of the handlebar.
Install the throttle grip onto the handlebar and connect the throttle cable to the throttle grip.



Install the right and left handlebar switch housings on the handlebar.

NOTE:

- Align the punch mark on the handlebar with the split in the housing.
- Tighten the forward screw first, then tighten the rear screw.
- After tightening the screws, check that the throttle grip rotates freely in all steering positions.



Install all the removed parts.
Perform the following adjustments and operations:

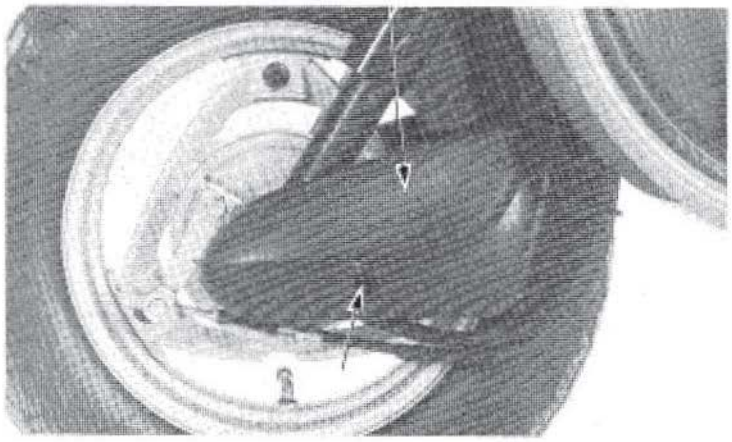
- Brake lever free play (Page 3-9)
- Headlight aiming (Page 3-10)
- Throttle grip free play (3-4)
- Check the operation of all electrical parts.

© HONDA MOTOR CO., LTD.

FRONT WHEEL

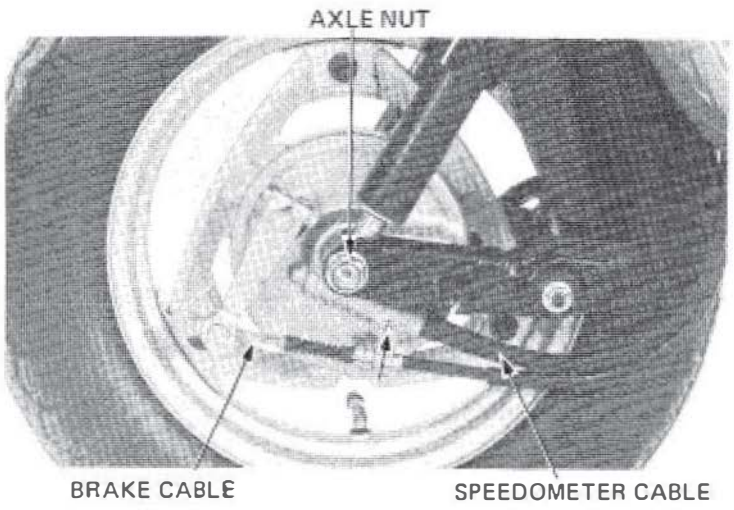
REMOVAL

Remove the cushion covers.



Disconnect the speedometer cable from the speedometer gearbox.
Disconnect the brake cable from the brake arm.
Loosen the right and left pivot arm bolts.

Remove the axle nut, withdraw the axle shaft and remove the front wheel.

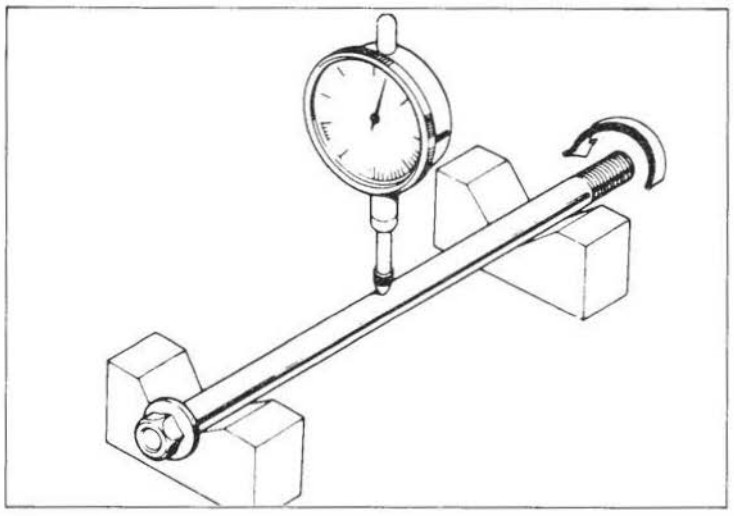


INSPECTION

- AXLE SHAFT

Set the axle in V blocks and measure the runout. The actual runout is 1/2 of the total indicator reading.

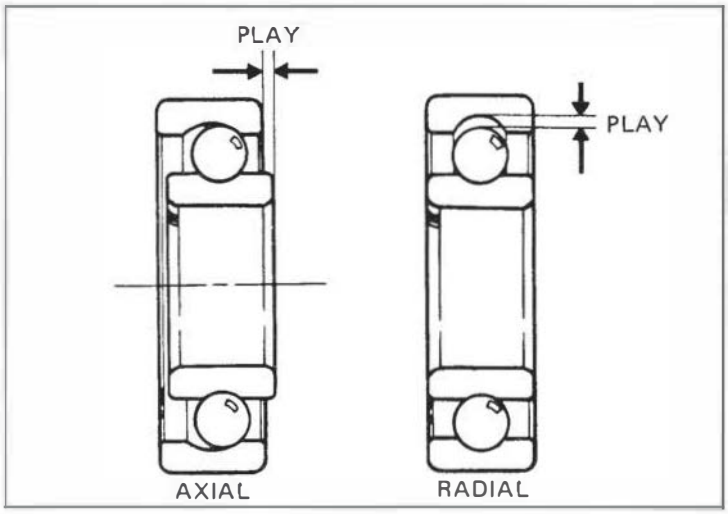
SERVICE LIMIT: 0.2 mm (0.01 in)



© HONDA MOTOR CO., LTD.

• WHEEL BEARING

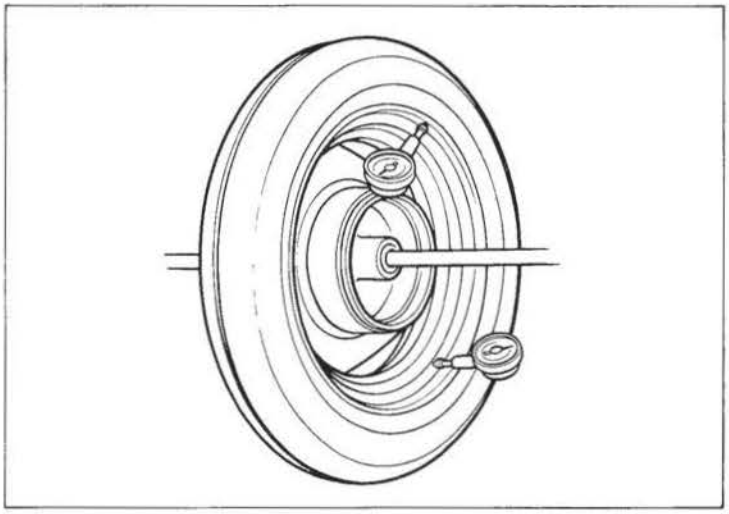
Check the wheel bearing play by placing the wheel in a truing stand and spinning the wheel by hand. Replace the bearings if they are noisy or have excessive play.



• WHEEL RIM

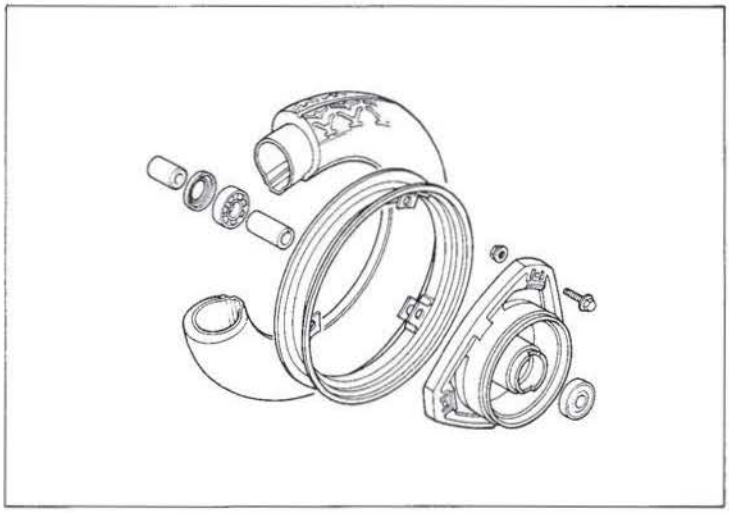
Check the rim runout by placing the wheel in a truing stand. Then spin the wheel by hand and read the runout using a dial gauge.

SERVICE LIMITS:
Radial: 2.0 mm (0.08 in)
Axial: 2.0 mm (0.08 in)



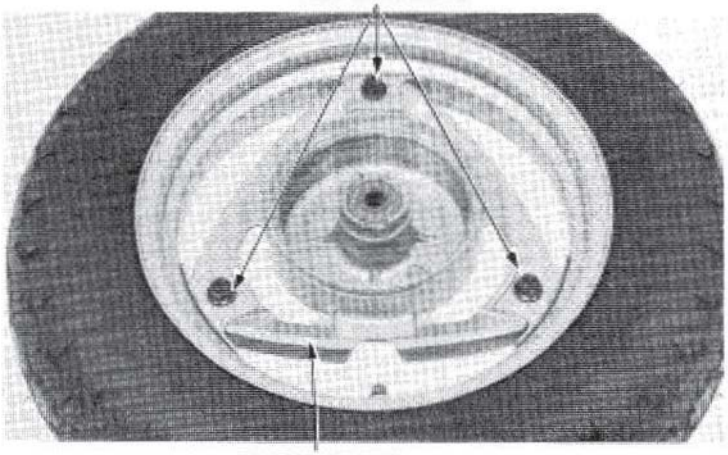
DISASSEMBLY

Remove the dust seal, bearings and distance collar.



© HONDA MOTOR CO., LTD.

Remove the three flange nuts and remove the spoke plate from the rim.



ASSEMBLY

Install the spoke plate onto the rim and tighten the flange nut.

TORQUE: 22–28 N·m
(2.2–2.8 kg-m, 16–20 ft-lb)

Pack all bearing cavities with grease.
Drive in the left bearing and install the distance collar.
Then drive in the right bearing.

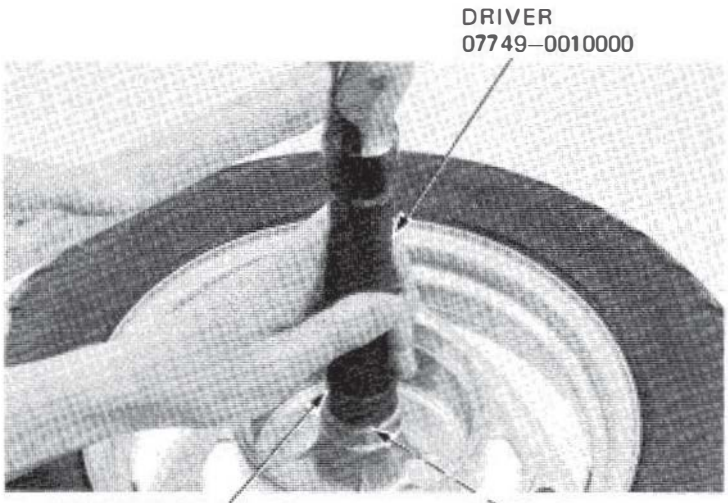
NOTE:

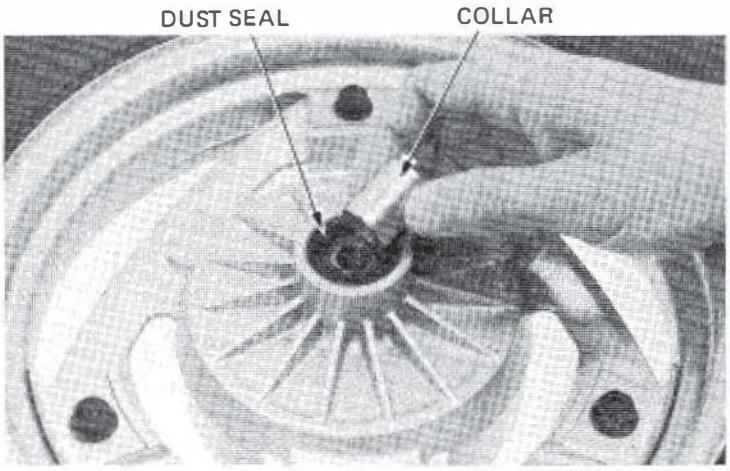
- Drive in the bearings squarely.
- Install the bearings with the sealed ends facing out.

WARNING

- *Contaminated brake linings reduce stopping power. Keep grease off the linings and brake drum.*

Apply grease to the inside of the dust seal.
Install the dust seal and axle collar.





© HONDA MOTOR CO., LTD.

INSTALLATION

Position the front wheel between the fork legs.

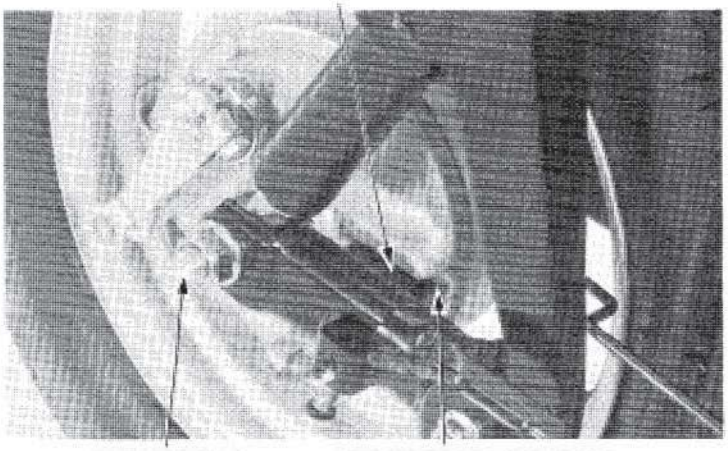
NOTE:

> Align the brake panel groove with the pivot arm stopper.

Insert the axle shaft through the wheel hub from the right side and install the axle nut.

Tighten the right and left pivot arm bolts.

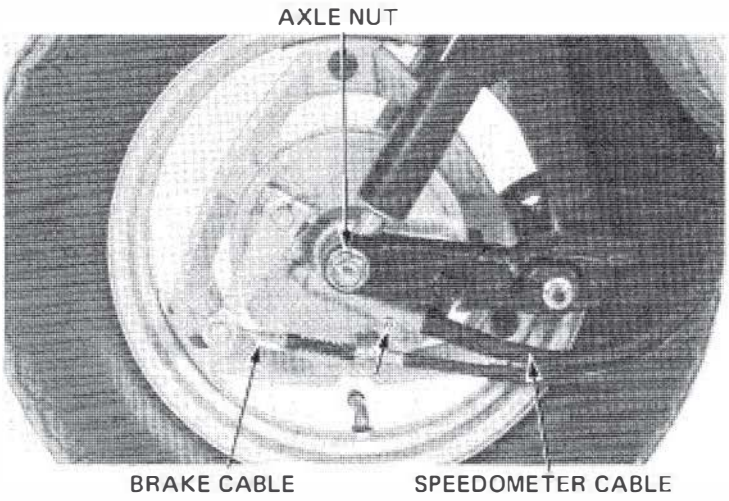
TORQUE: **20–24 N·m**
(2.0–2.4 kg-m, 14–17 ft-lb)



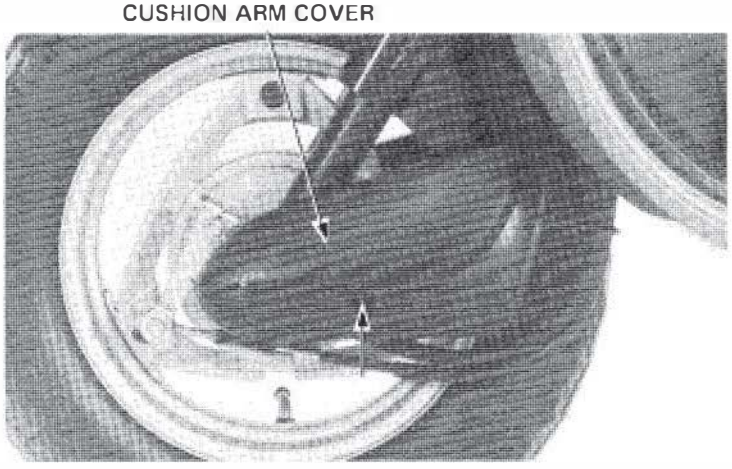
Tighten the axle nut to the specified torque.

TORQUE: **50–70 N·m**
(5.0–7.0 kg-m, 36–51 ft-lb)

Connect the speedometer cable to the speedometer gearbox.
Connect the brake cable to the front brake arm.
Adjust the front brake lever free play (Page 3-9).

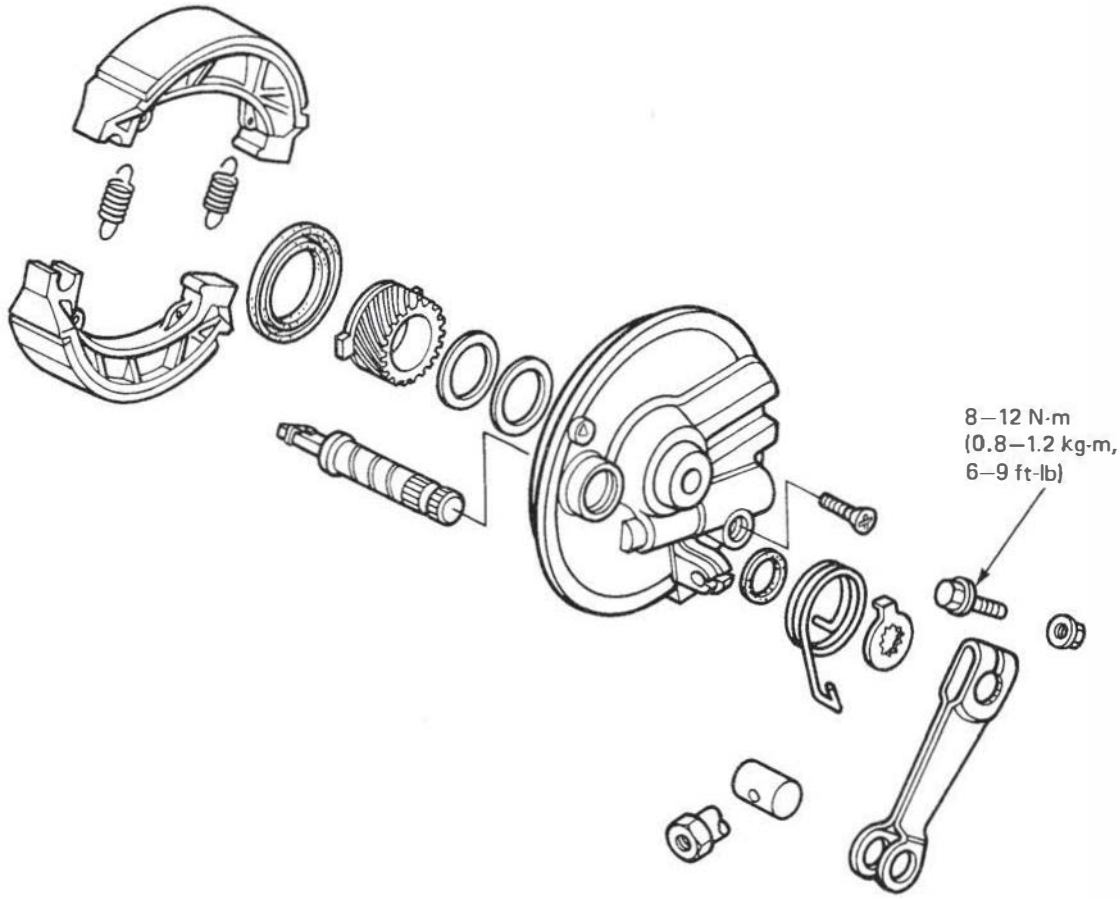


Install the cushion arm covers with the bolts.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

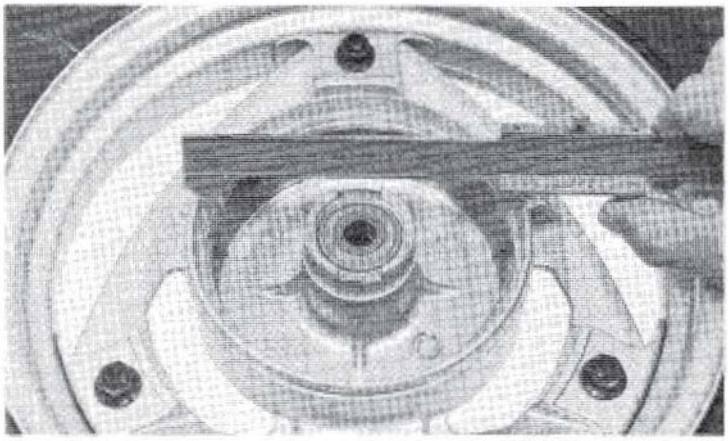
FRONT BRAKE



FRONT BRAKE DRUM INSPECTION

Remove the front wheel (Page 12-9).
Remove the brake panel.
Measure the brake drum I.D.

SERVICE LIMIT: 111.0 mm (4.37 in)



© HONDA MOTOR CO., LTD.

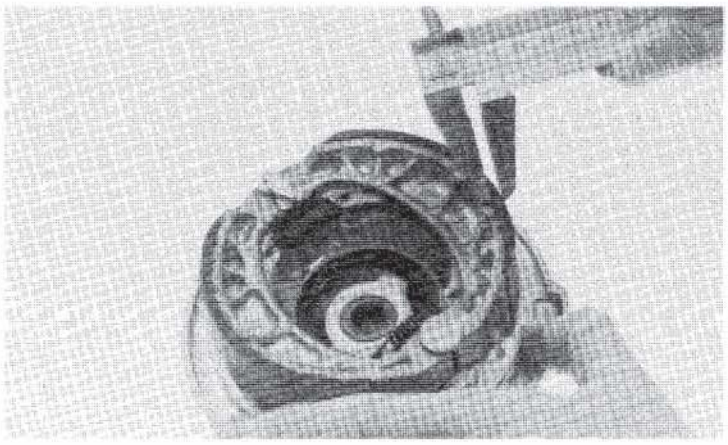
BRAKE LINING INSPECTION

Measure the brake lining thickness.

SERVICE LIMIT: 2.0 mm (0.08 in)

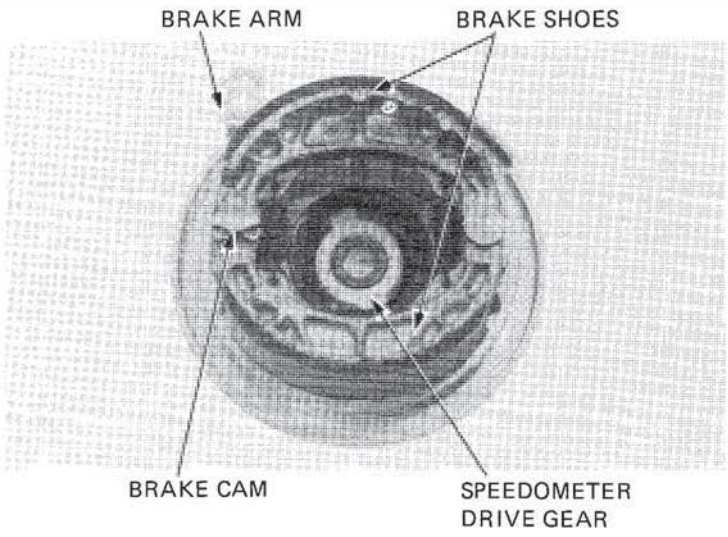
WARNING

- *Contaminated brake linings reduce stopping power. Keep grease off the linings.*
- *Brake dust contains asbestos which can be harmful to your health. Do not use compressed air to clean brake parts. Use a vacuum with a sealed dust collector. Wear a protective face mask and wash your hands when finished.*



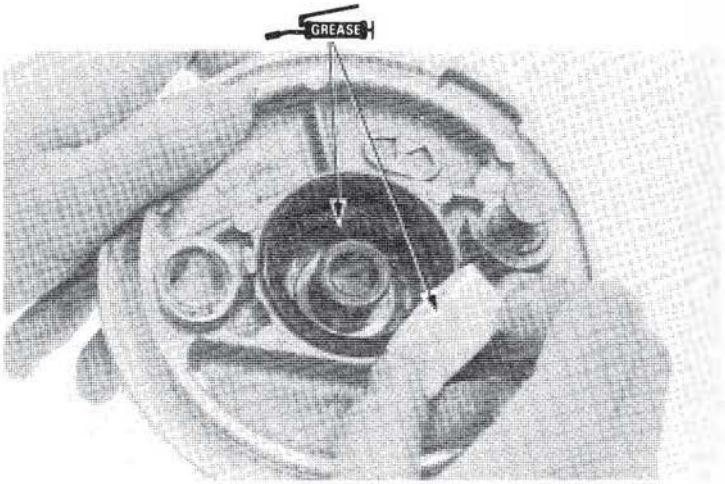
BRAKE PANEL DISASSEMBLY

Remove the brake shoes.
Remove the brake arm and the brake cam.
Remove the speedometer drive gear.



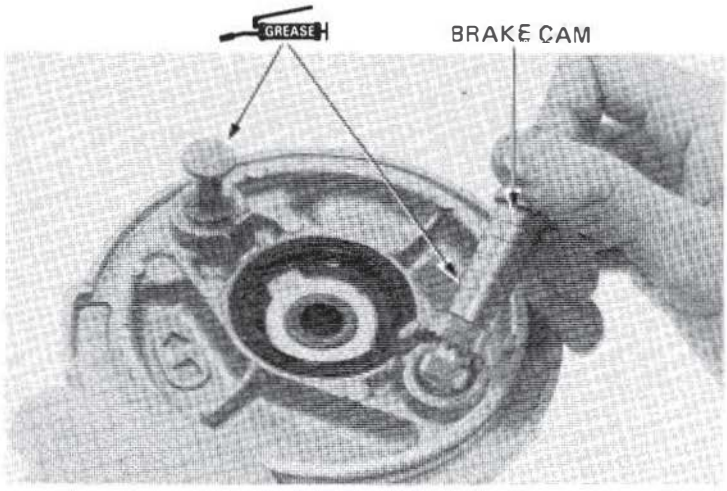
BRAKE PANEL ASSEMBLY

Lubricate the speedometer drive gear with grease and install the drive gear in the brake panel.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Apply silicone grease to the anchor contacting area of each shoe and to the brake shoe contacting area of the brake cam.
Install the brake cam.

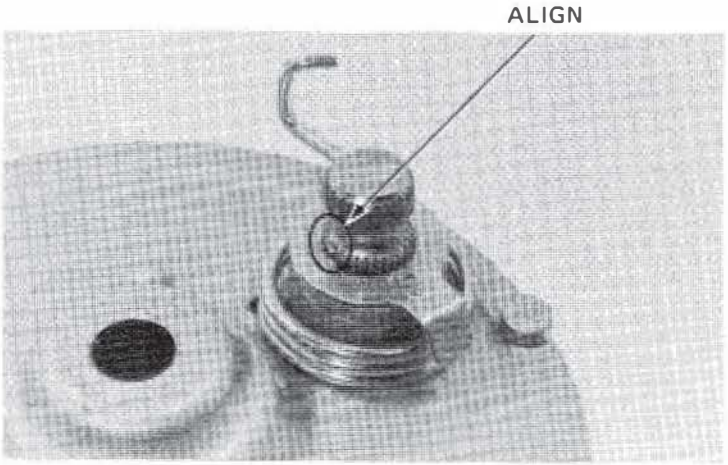


WARNING

Avoid getting grease on the inside of the brake drum or braking power will be reduced. Clean the inside of the brake panel thoroughly.

Install the brake shoes.

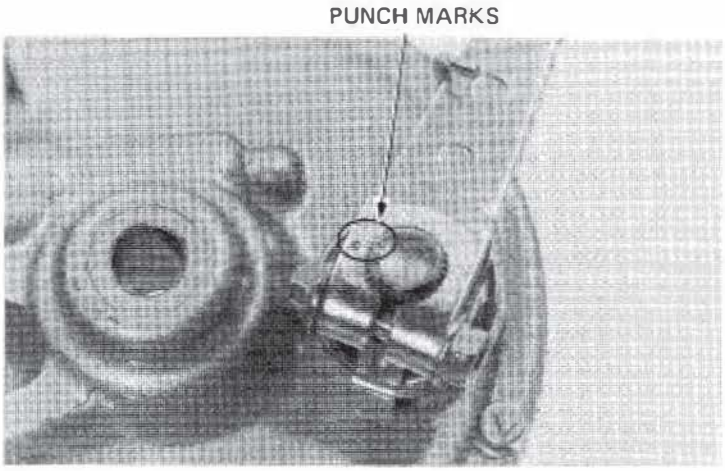
Install the felt oil seal.
Install the wear indicator plate on the brake cam shaft.



NOTE:

Align the wide tooth on the plate with the widegroove on the camshaft.

Install the brake arm.



NOTE:

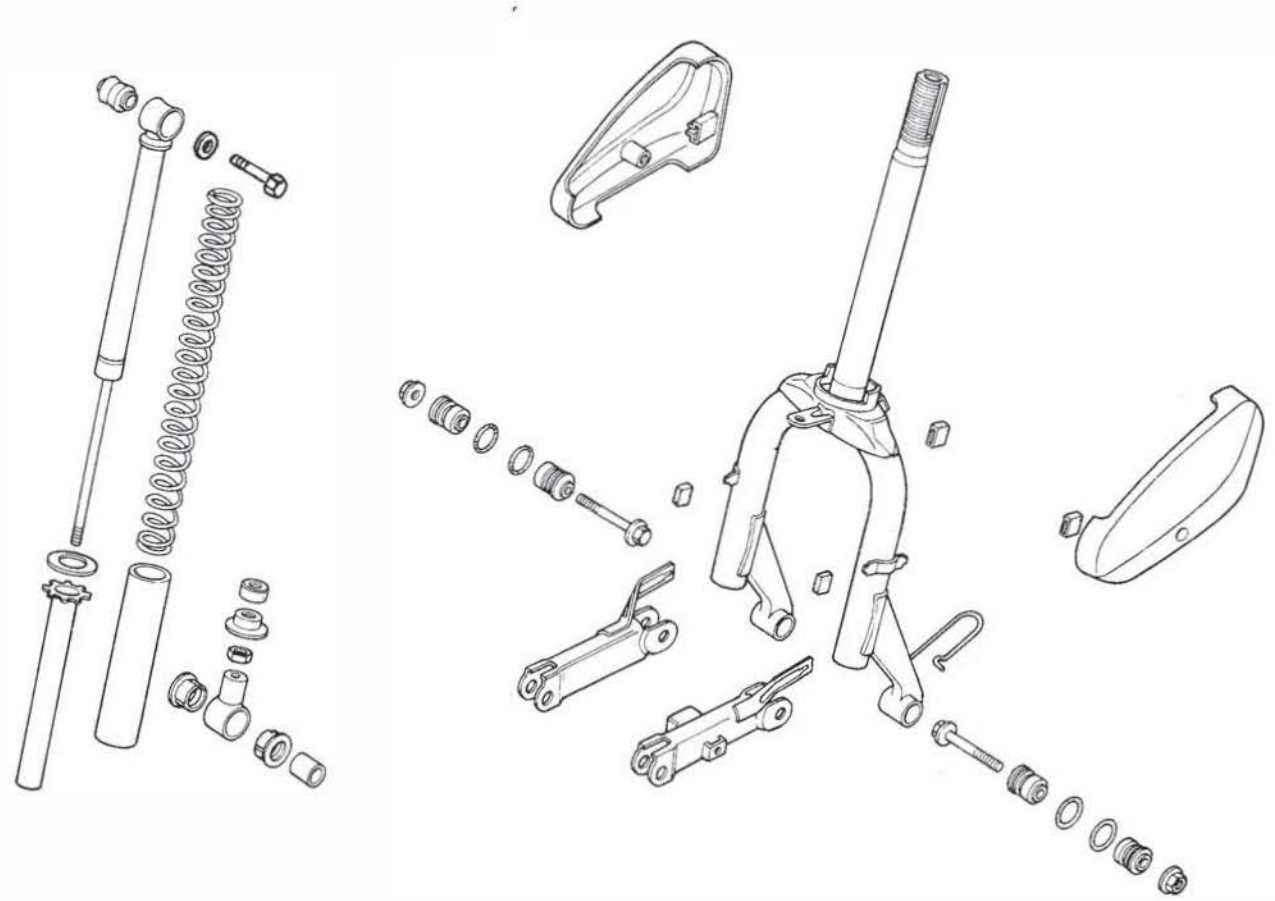
Align the punch marks on the brake arm and camshaft.

Torque the brake arm bolt.

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

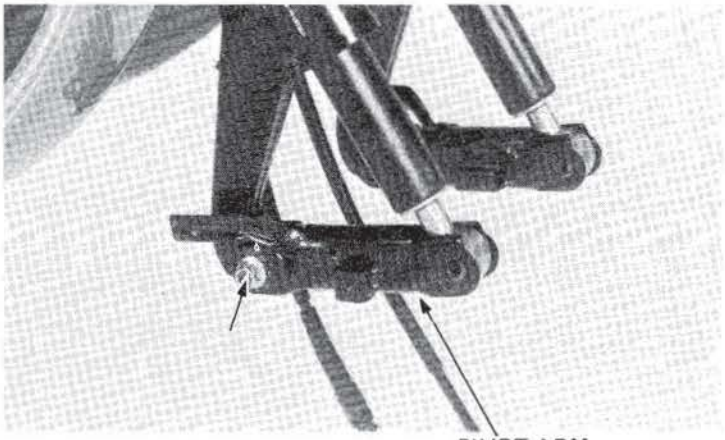
© HONDA MOTOR CO., LTD.

FRONT SHOCK



FRONT SHOCK REMOVAL

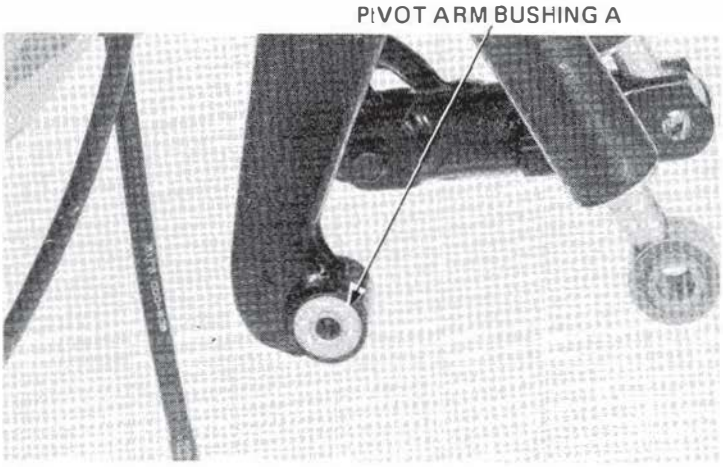
Remove the front wheel (Page 12-9).
Remove the pivot arm bolt and the pivot arm.



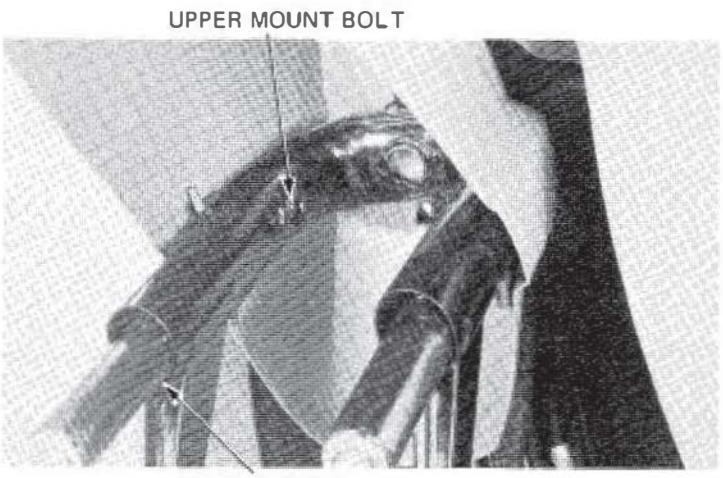
PIVOT ARM

© HONDA MOTOR CO., LTD.

Check the pivot arm bushing A for wear or damage. If bushing replacement is necessary, remove the front fork (Page 12-20).

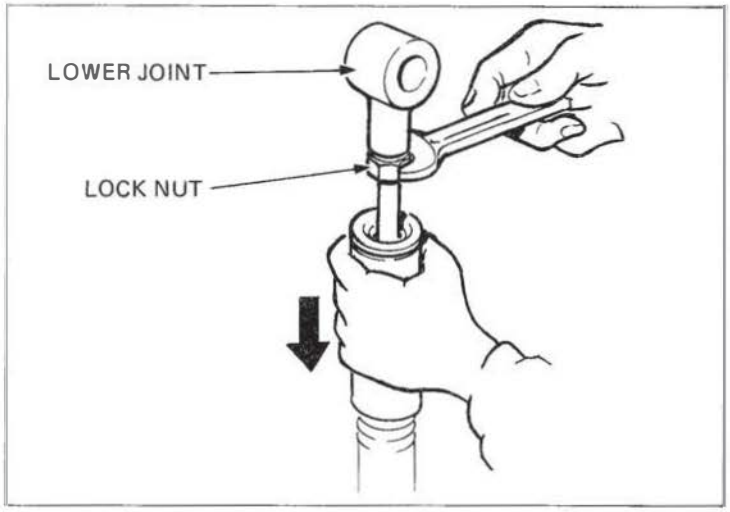


Remove the front shock by removing the upper mount bolts.



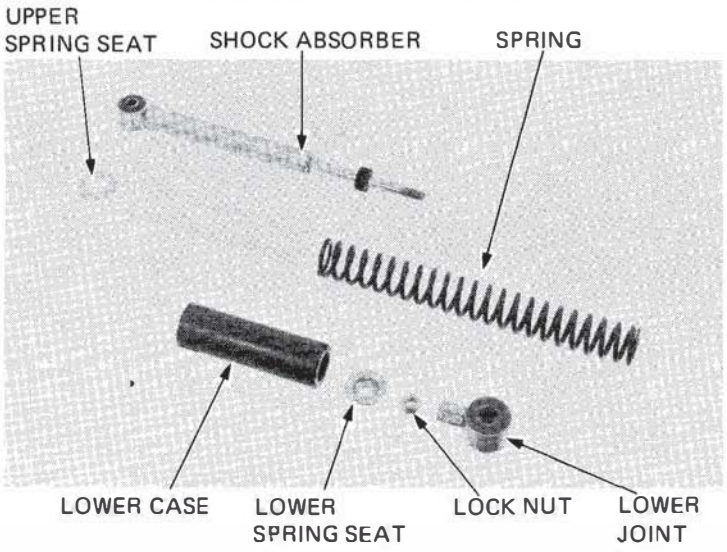
FRONT SHOCK DISASSEMBLY

Place the front shock upper joint in a vise.
Compress the spring by hand and loosen the lock nut and joint.
Remove the joint and lock nut.
Remove the spring, lower case and spring seat.



© HONDA MOTOR CO., LTD.

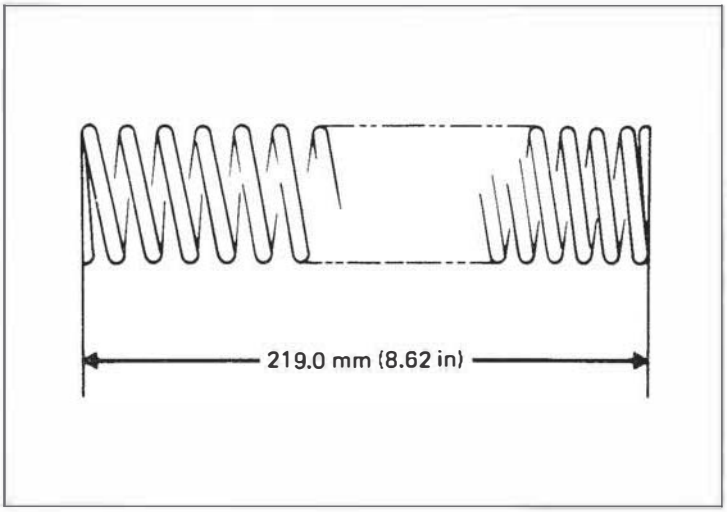
Disassemble the shock.



SPRING INSPECTION

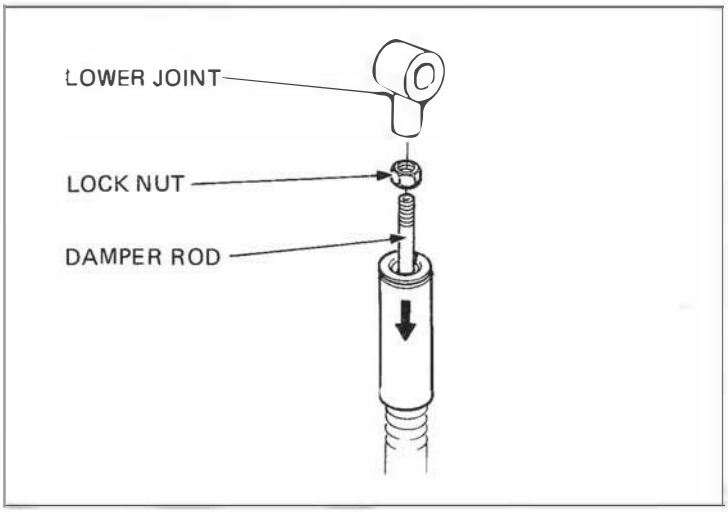
Measure the spring free length.

SERVICE LIMIT: 219.0 mm (8.62 in)



FRONT SHOCK ASSEMBLY/ INSTALLATION

Place the front shock upper joint in a vise.
Extend the damper rod fully. Install the upper spring seat, spring, lower case and lower spring seat.
Apply a thread lock to the lock nut and screw the lock nut onto the damper shaft completely.
Install the lower joint and tighten the lock nut.

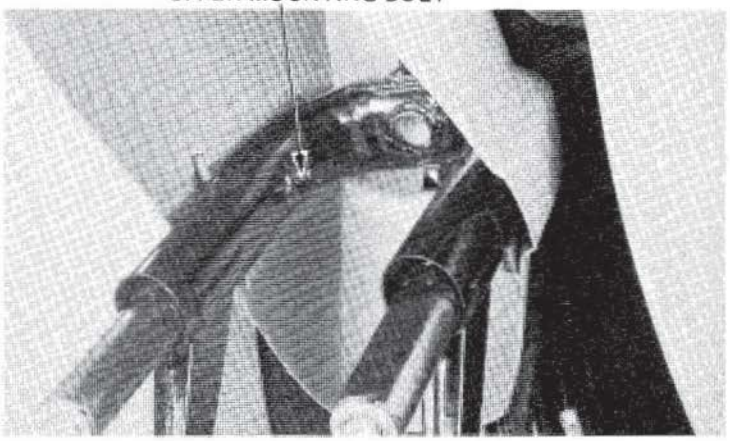


© HONDA MOTOR CO., LTD.

Slide the front shock into the front fork and secure with the upper mounting bolt.

TORQUE: 30–36 N·m
(3.0–3.6 kg-m, 22–26 ft-lb)

UPPER MOUNTING BOLT

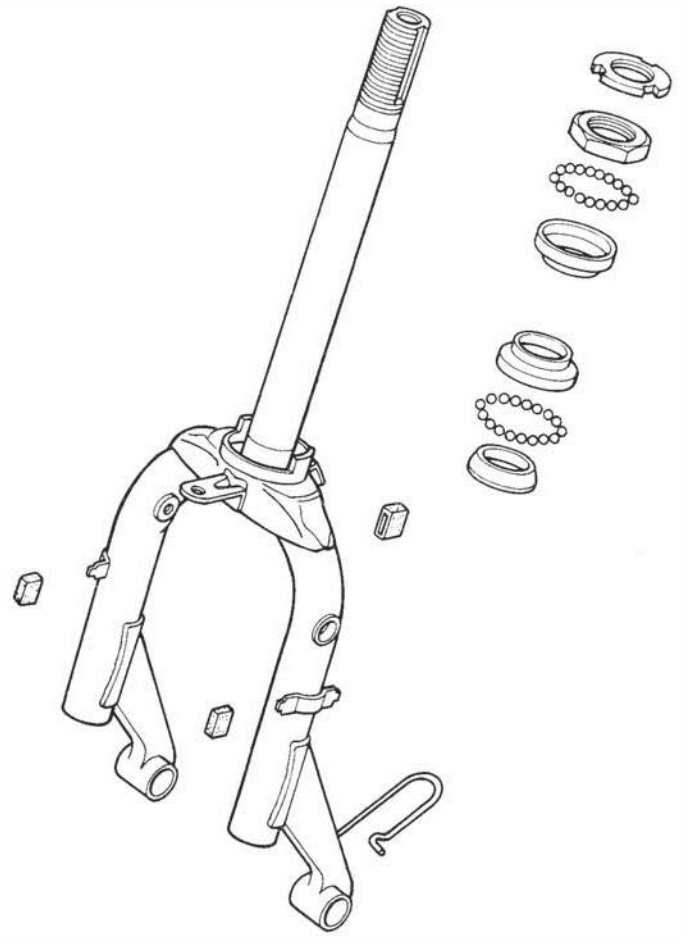


Lubricate and loosely install the front fork pivot arms with the attaching bolts and nuts.
Install the front wheel (Page 12-12).

FRONT FORK PIVOT ARM

© HONDA MOTOR CO., LTD.

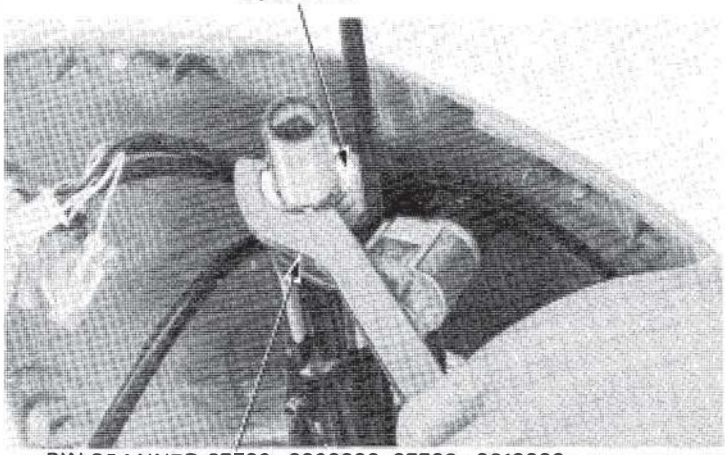
FRONT FORK



FRONT FORK REMOVAL

Remove the following:
- Meter assembly (Page 12-3).
- Handlebar (Page 12-6).
- Front wheel (Page 12-9).
- Glovebox (Section 11).
- Steering stem nut.

LOCK NUT



PIN SPANNER 07702–0020000, 07702–0010000
or M9361–412–099788 (U.S.A. only)

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

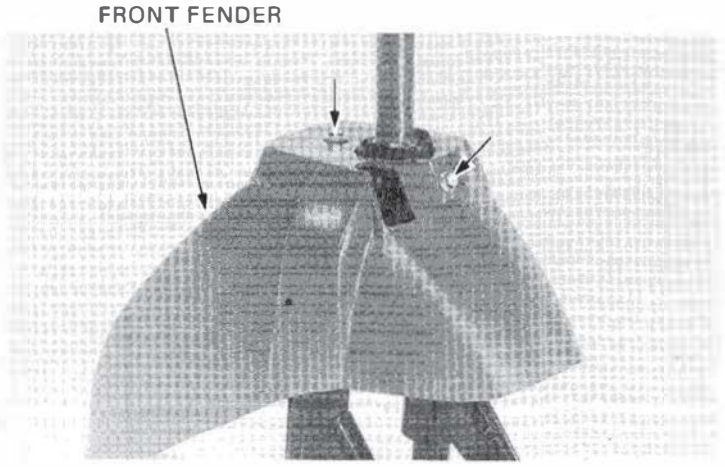
Remove the top cone race and remove the front fork.

NOTE:

> Place the steel balls in a parts tray so they are not lost.

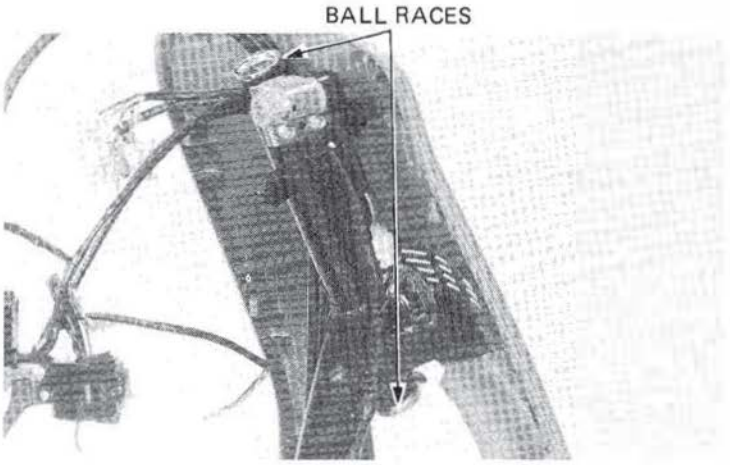
FRONT FENDER REMOVAL

Remove the two bolts attaching the front fender and remove the front fender.



BALL RACE REPLACEMENT

Remove the upper and lower ball races by tapping their flanges with a plastic hammer.

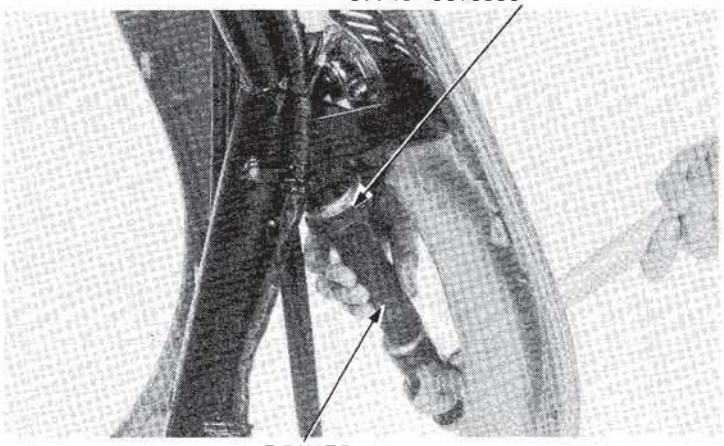


© HONDA MOTOR CO., LTD.

Drive in a new bottom ball race until it bottoms.

NOTE:

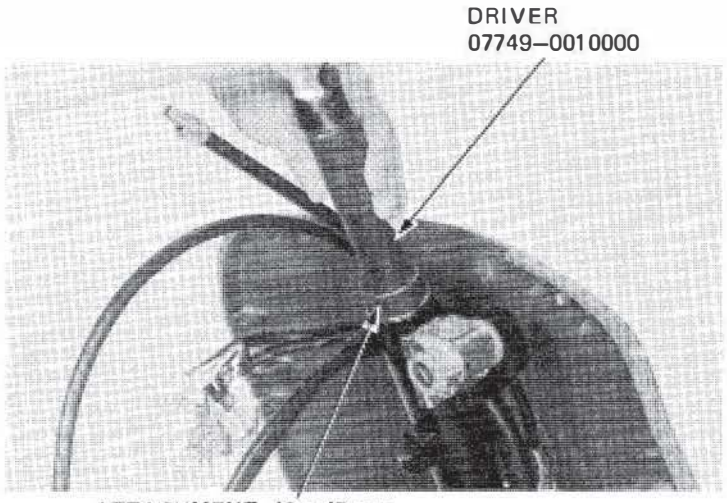
Do not allow the ball race to tilt during installation.



Drive in a new top ball race until it bottoms.

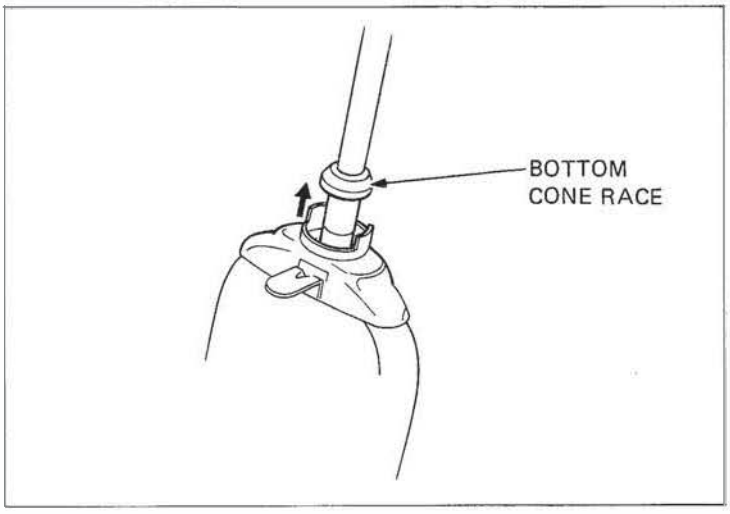
NOTE:

Do not allow the ball race to tilt during installation.



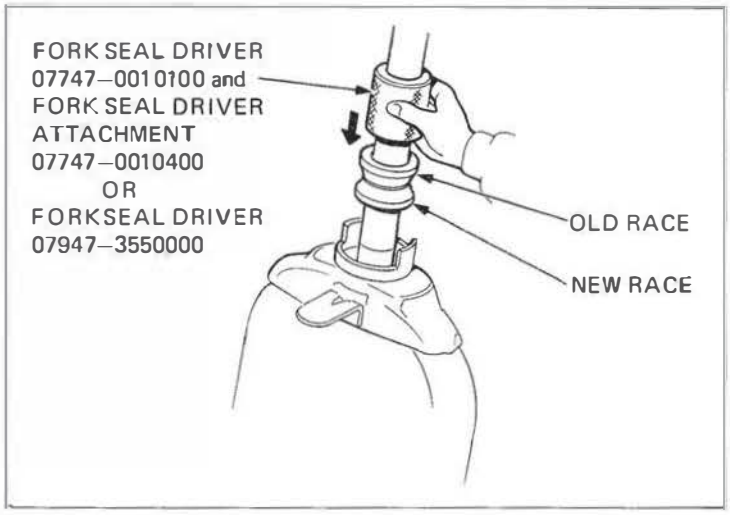
BOTTOM CONE RACE REPLACEMENT

Remove the bottom cone race with a cold chisel, being careful not to damage the steering stem.



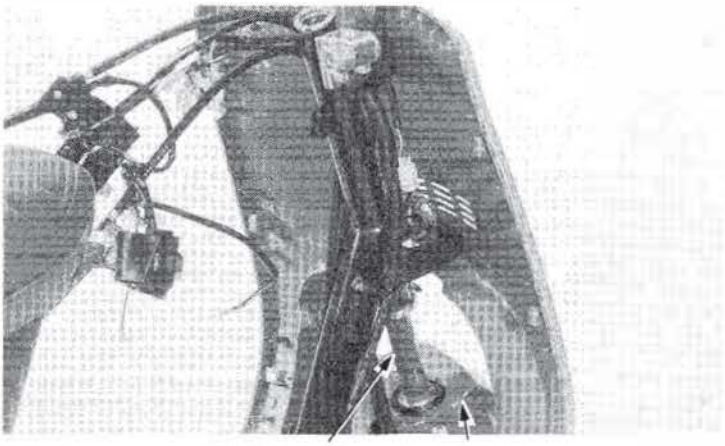
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Install a new bottom cone race over the steering stem.
Install the old bottom cone race over the new bottom cone race upside down.
Drive the bottom cone race with special tools until it seats in place, then remove the old bottom cone race.



FRONT FORK INSTALLATION

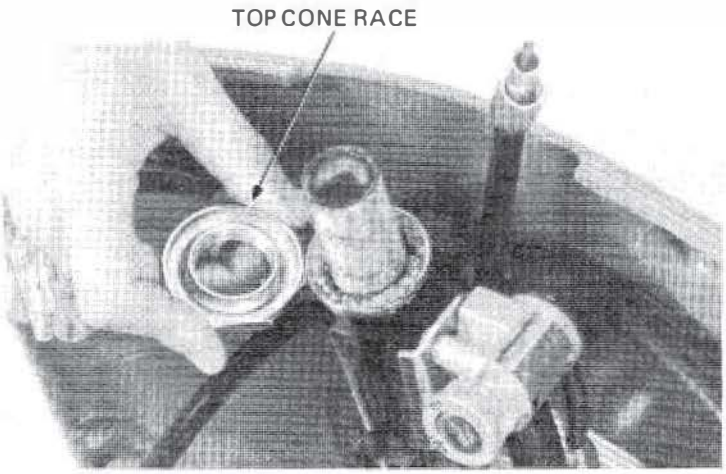
Install the front fender on the front fork.
Coat the ball races with grease and install 26 steel balls on the top ball race and 29 steel balls on the bottom ball race.



Lubricate the top cone race with grease.
Screw in the race until snug against the top ball race, then back it out 1/8 turn.

NOTE:

> Check that the steering stem rotates freely and there is no vertical play.



© HONDA MOTOR CO., LTD.

Install the head top thread nut and tighten it while holding the top cone race.

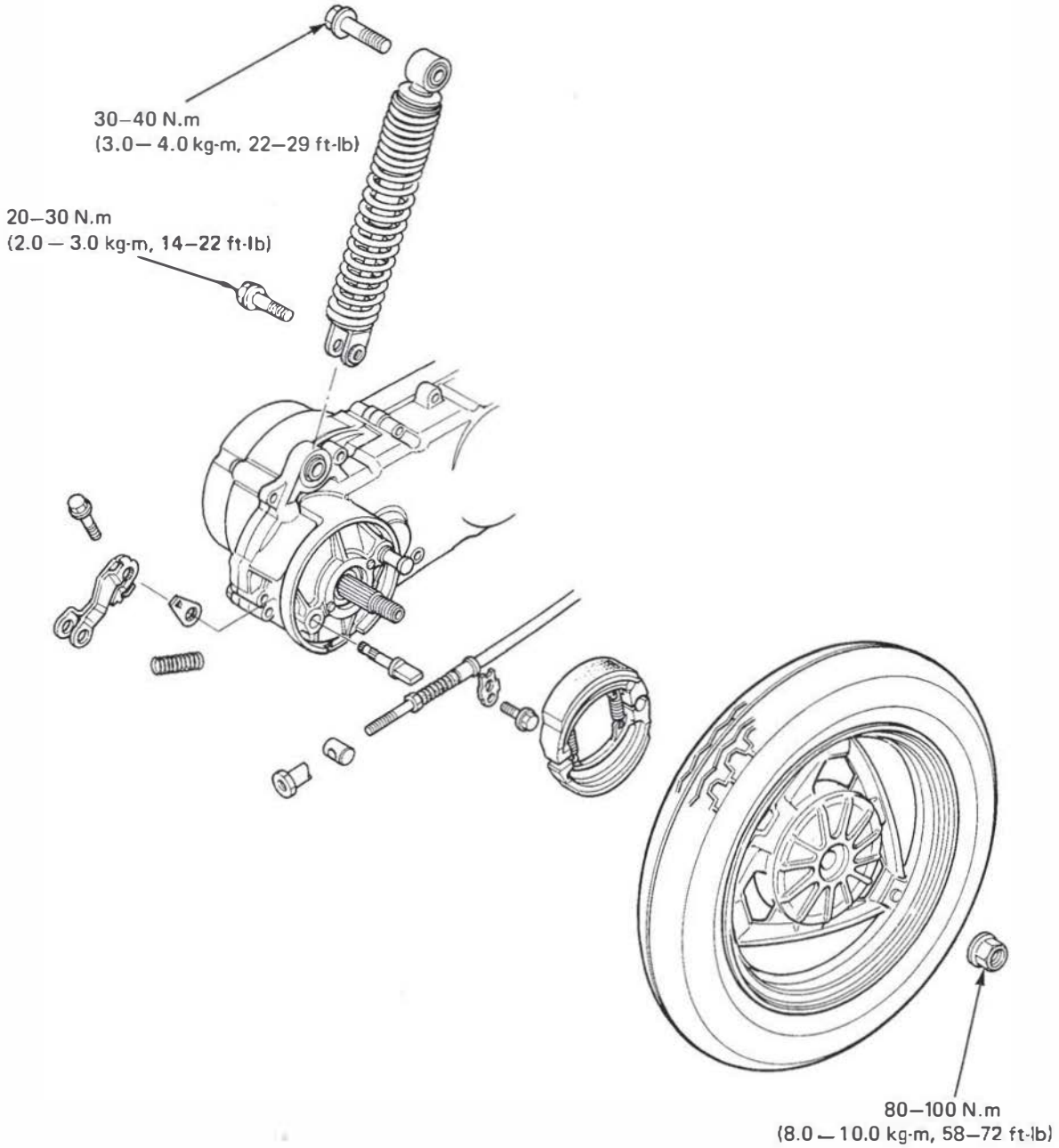
Install the following:

- Front wheel (Page 12-12)
- Handlebar (Page 12-7)
- Meter assembly (Page 12-6)
- Glovebox (Section 11)

HEAD TOP THREAD NUT

PIN SPANNER 07702–0020000,
07702–0010000 or
M9361–412–099788 (U.S.A. only)

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

13. REAR WHEEL/BRAKE/SUSPENSION

SERVICE INFORMATION

GENERAL

- Brake dust contains asbestos which can be harmful to your health. Do not use compressed air to clean brake drums or brake pads. Use a vacuum with a sealed dust collector. Wear a protective face mask and thoroughly wash your hands when finished.

SPECIFICATIONS

ITEM	STANDARD	SERVICE LIMIT
Rear wheel rim runout	–	2.0 mm (0.08 in)
Brake drum I.D.	95.0 mm (3.74 in)	95.5 mm (3.76 in)
Brake lining thickness	5.0 mm (0.20 in)	2.0 mm (0.08 in)
Rear shock absorber spring free length	228.6 mm (9.00 in)	221.7 mm (8.73 in)

TORQUE VALUES

Rear shock upper mount bolt	30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
Rear shock lower mount bolt	20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)
Rear axle nut	80–100 N·m (8.0–10.0 kg-m, 58–72 ft-lb)

TOOLS

Special

Rear shock absorber attachment A	07967–GA70101
Spring attachment holder	07967–07967–GC80000 or 07967–1180100

Common

Rear shock absorber compressor	07959–3290001

TROUBLESHOOTING

Rear wheel wobbling
1. Bent rim
2. Faulty tire
3. Axle not tightened properly

Soft suspension
1. Weak shock absorber spring

Brake squeaks
1. Worn brake linings
2. Foreign matter on linings
3. Rough brake drum shoe contacting face

Poor brake performance
1. Brake not adjusted properly
2. Contaminated brake linings
3. Worn brake linings
4. Worn brake shoes at cam contacting area
5. Worn brake cam
6. Worn brake drum
7. Improper engagement between brake arm and camshaft serrations

13

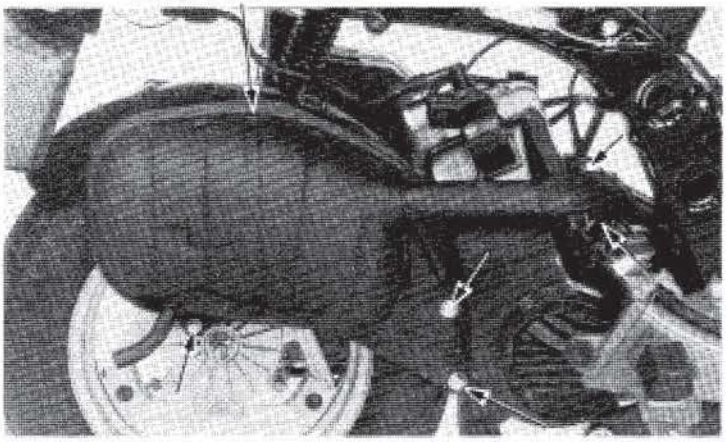
© HONDA MOTOR CO., LTD.

REAR WHEEL

REMOVAL

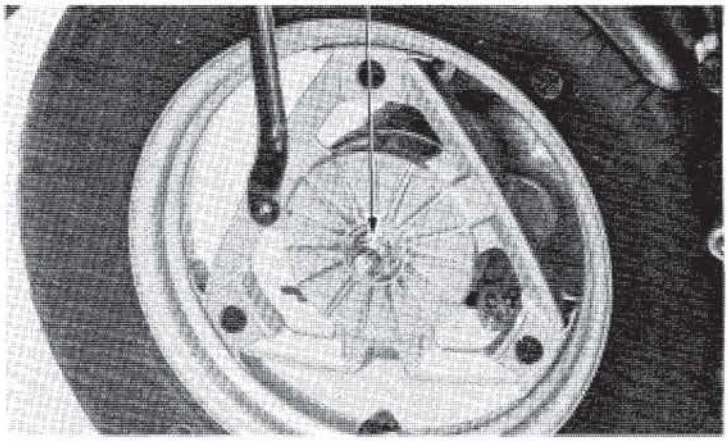
Remove the frame center cover (Section 11).
Remove the exhaust muffler.

EXHAUST MUFFLER



Remove the axle nut and the rear wheel.

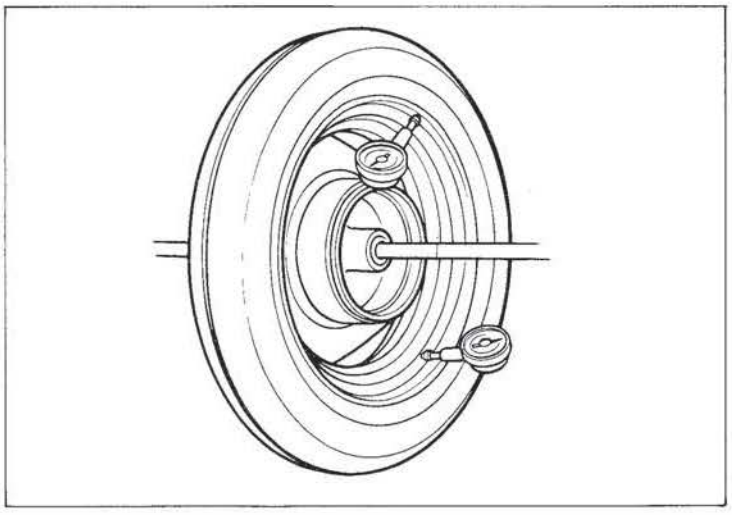
AXLE NUT



REAR WHEEL RIM RUNOUT INSPECTION

Check the rim for runout using a dial gauge as shown.

SERVICE LIMITS:
Radial: 2.0 mm (0.08 in)
Axial: 2.0 mm (0.08 in)



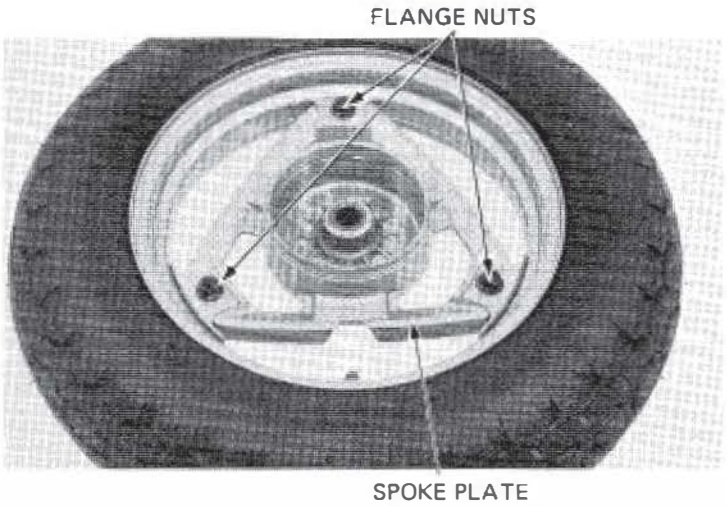
© HONDA MOTOR CO., LTD.

REAR WHEEL SPOKE

Remove the three flange nuts attaching the spoke plate to the wheel rim and remove the spoke plate.

Reinstall the spoke plate and tighten the flange nut.

TORQUE: 22–28 N·m
(2.2–2.8 kg-m, 16–20 ft-lb)



INSTALLATION

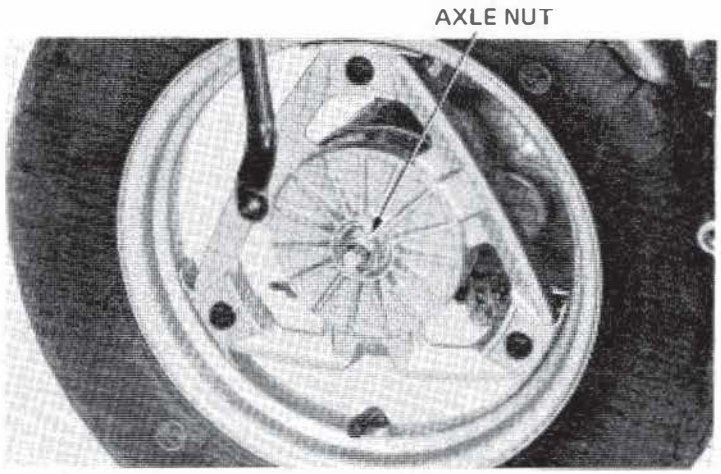
Install the rear wheel and tighten the axle nut.

TORQUE: 80–100 N·m
(8.0–10.0 kg-m, 58–72 ft-lb)

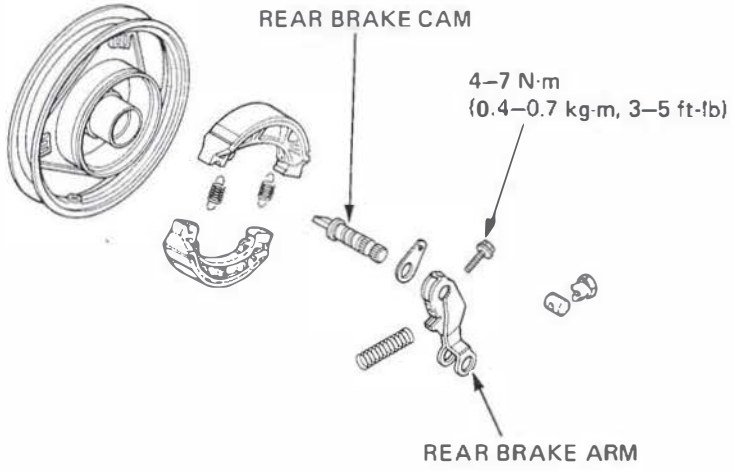
Install the muffler.

TORQUE:
8 mm bolts: 40–50 N·m
(4.0–5.0 kg-m, 29–36 ft-lb)

Install the frame center cover.



REAR BRAKE



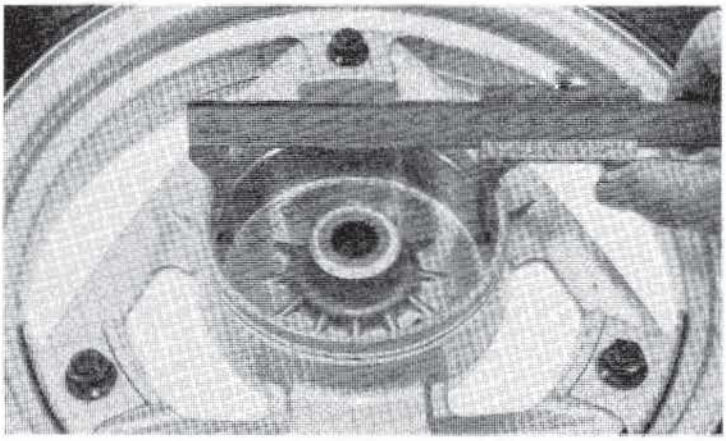
© HONDA MOTOR CO., LTD.

Remove the rear wheel (Page 13-2).

DRUM INSPECTION

Measure the rear brake drum I.D.

SERVICE LIMIT: 95.5 mm (3.76 in)



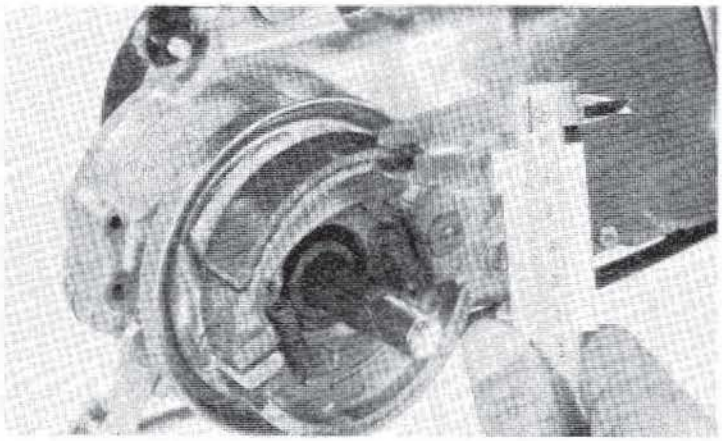
LINING INSPECTION

Measure the rear brake lining thickness.

SERVICE LIMIT: 2.0 mm (0.08 in)

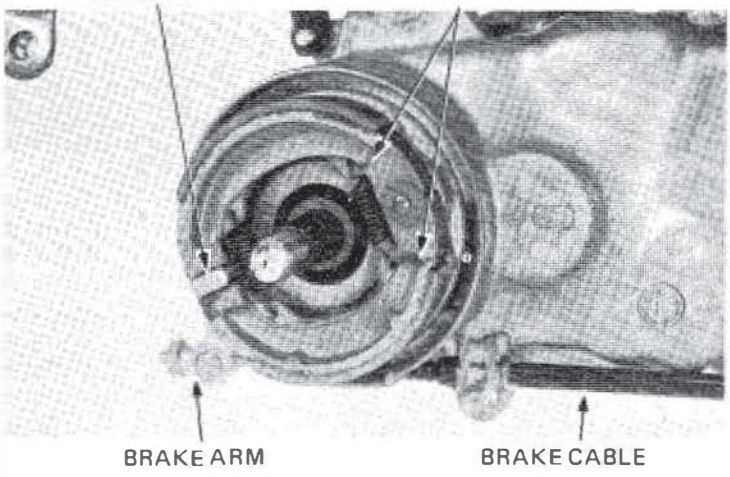
WARNING

Keep grease off the brake linings. Wipe off excess grease.



DISASSEMBLY

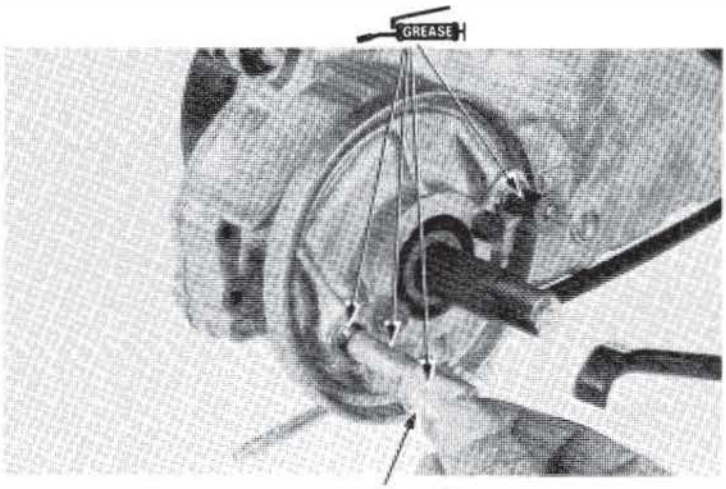
Disconnect the brake cable from the brake arm.
Remove the brake shoes.
Remove the brake arm and the brake cam.



Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

ASSEMBLY

Apply grease to the anchor contacting area of the brake cam.
Apply grease to the brake cam, and install.
Install the brake shoes.



BRAKE CAM

Install the wear indicator plate.

NOTE:

> Align the wide groove on the cam with the wide tooth on the indicator plate.

Install the brake arm.

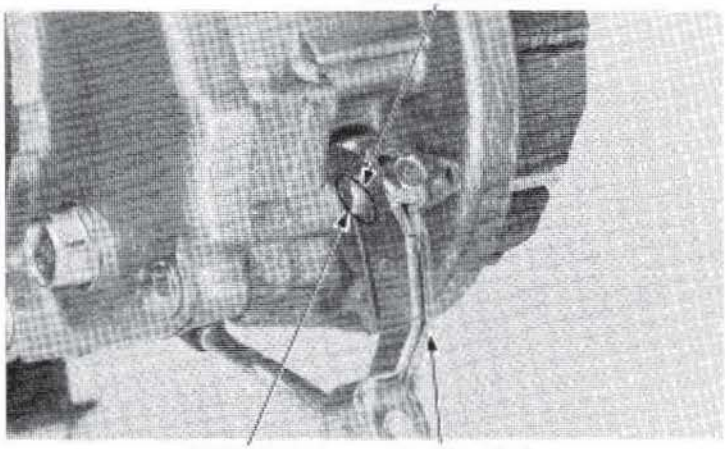
NOTE:

> Align the scribed lines on the brake cam and brake arm.

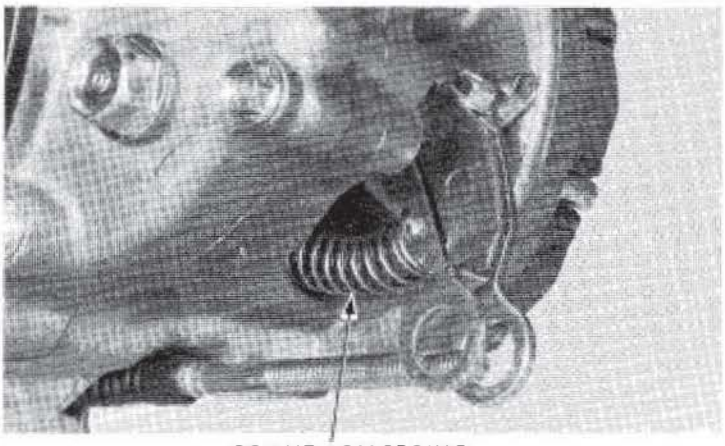
Tighten the brake arm bolt to the specified torque.

TORQUE: 4–7 N·m (0.4–0.7 kg-m, 3–5 ft-lb)

SCRIBED LINES


BRAKE CAM BRAKE ARM

Install the brake arm spring.

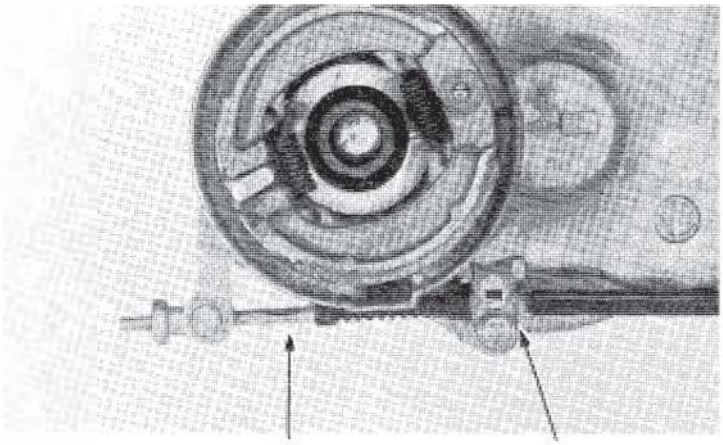

BRAKE ARM SPRING

©HONDA MOTOR CO., LTD.

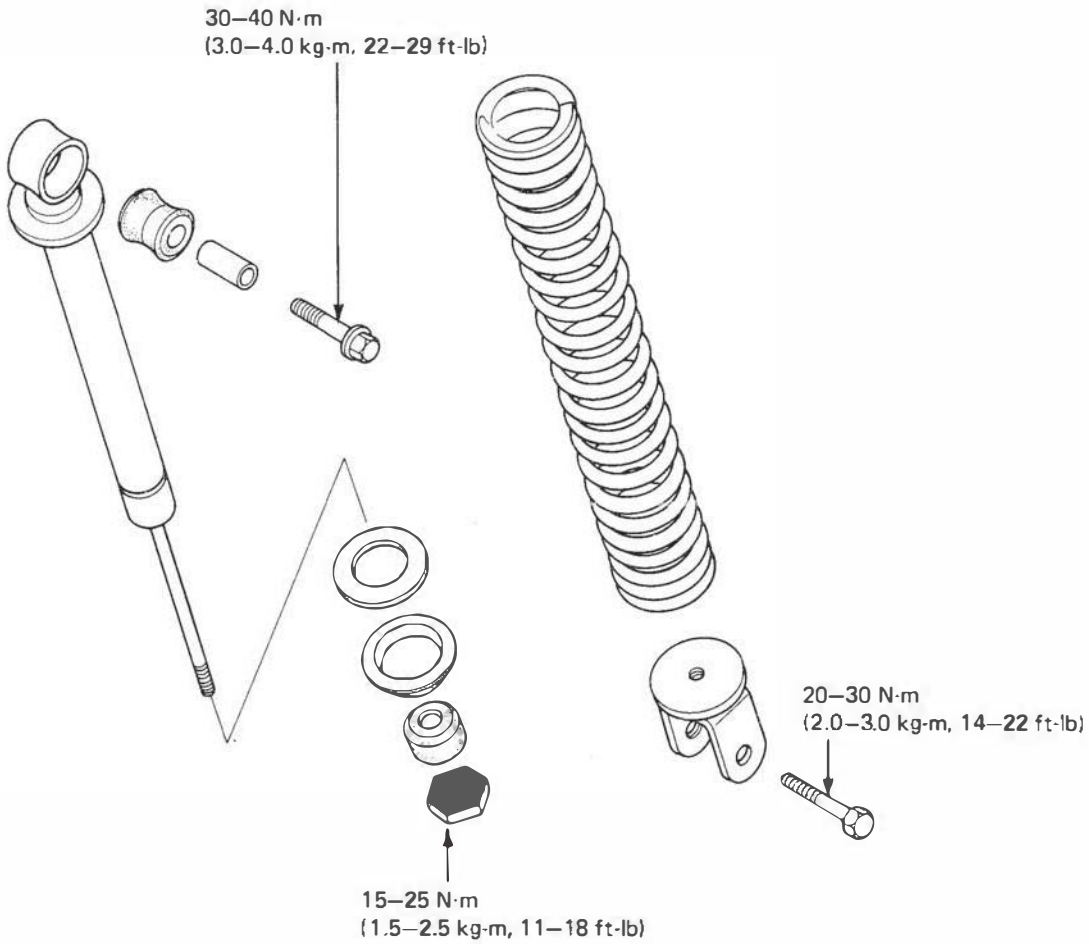
Connect the rear brake cable to the brake arm.

NOTE:

Insert the brake cable into the groove in the left crankcase and install the plate as shown.



REAR SHOCK ABSORBER



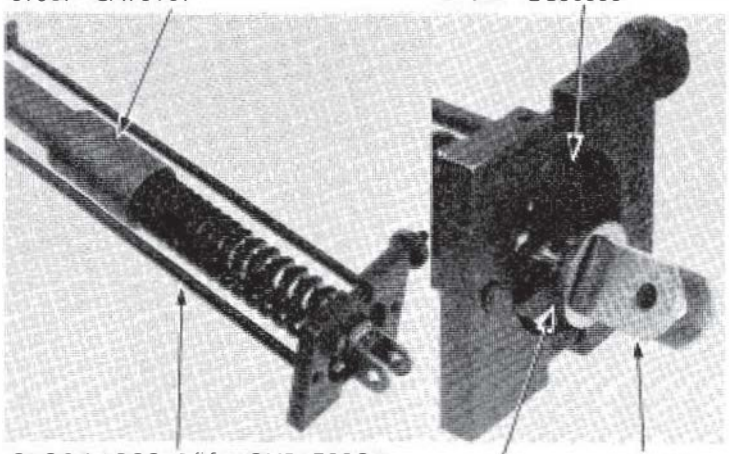
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

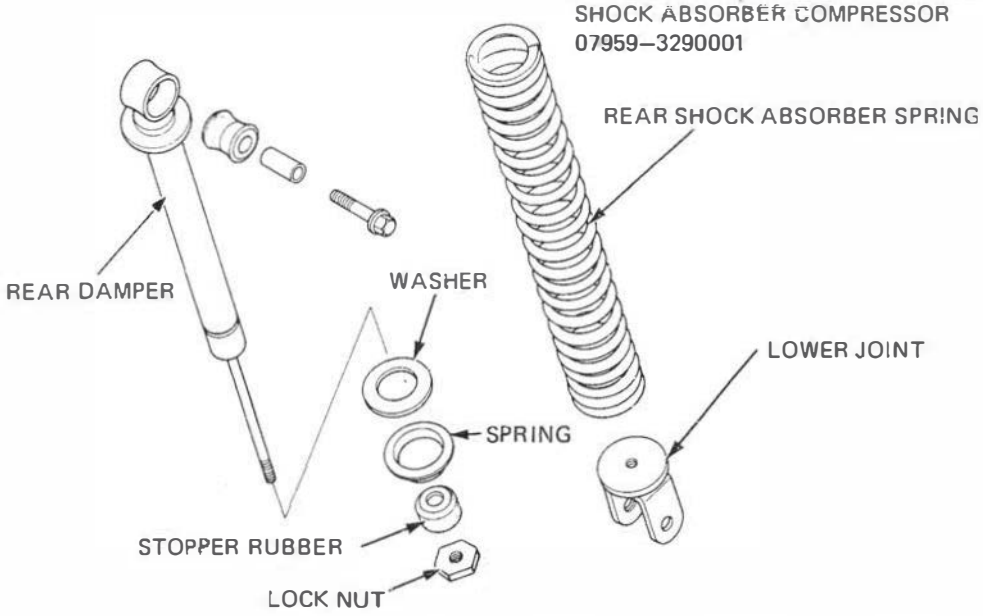
REMOVAL

Remove the rear shock absorber upper and lower bolts.
Remove the rear shock absorber.

DISASSEMBLY

Remove the rear shock absorber lower joint by compressing it with the compressor.



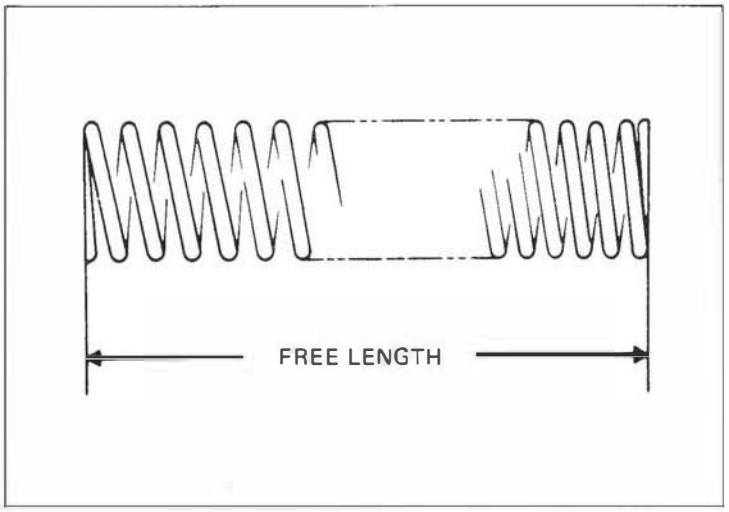


© HONDA MOTOR CO., LTD.

SPRING FREE LENGTH

Measure the spring free length.

SERVICE LIMIT: 221.7 mm (8.73 in)

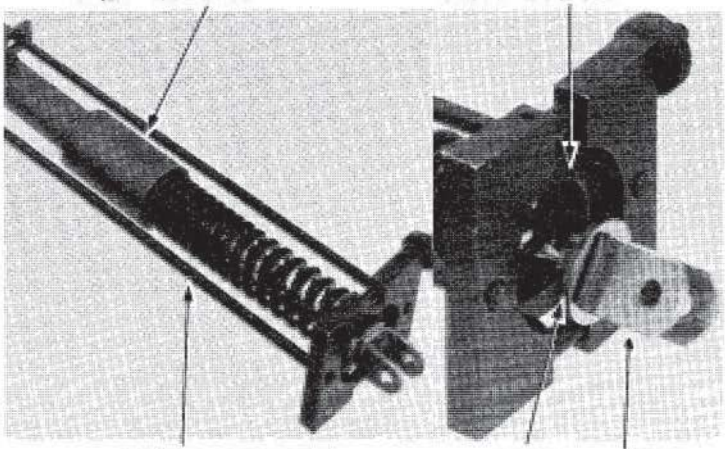


ASSEMBLY

NOTE:

- Install the spring with the tightly wound coil on the upper metal side.
- Apply locking agent to the lock nut before installation.

TORQUE: 15–25 N·m (1.5–2.5 kg-m, 11–18 ft-lb)



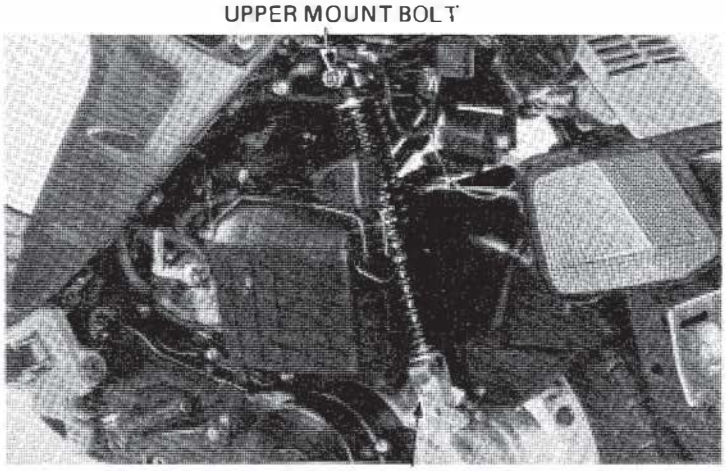
INSTALLATION

Install the rear shock absorber.
Tighten the upper and lower mount bolts to the specified torques.

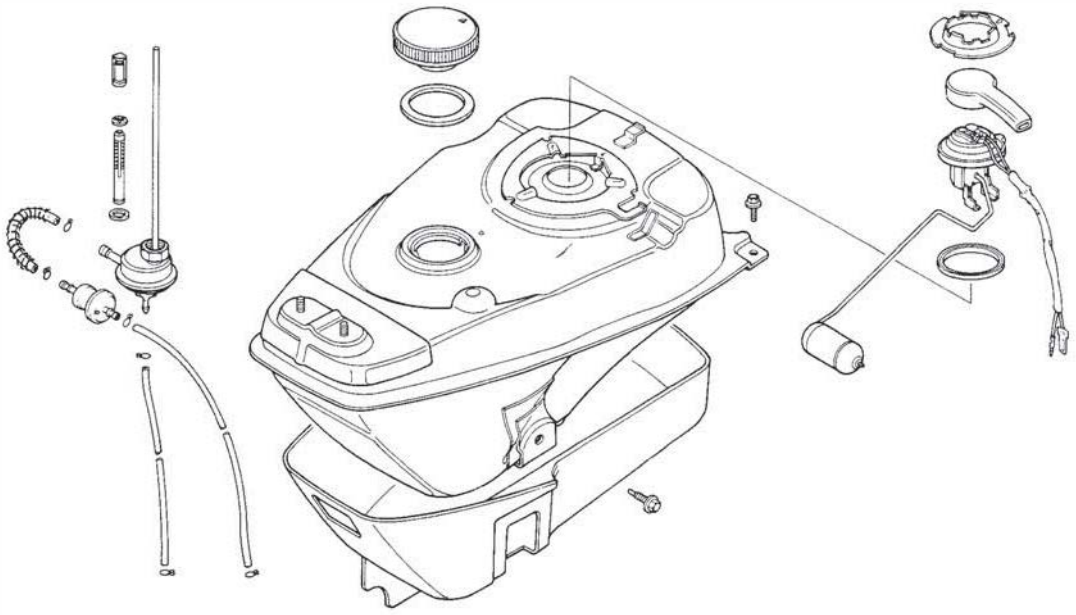
TORQUES:

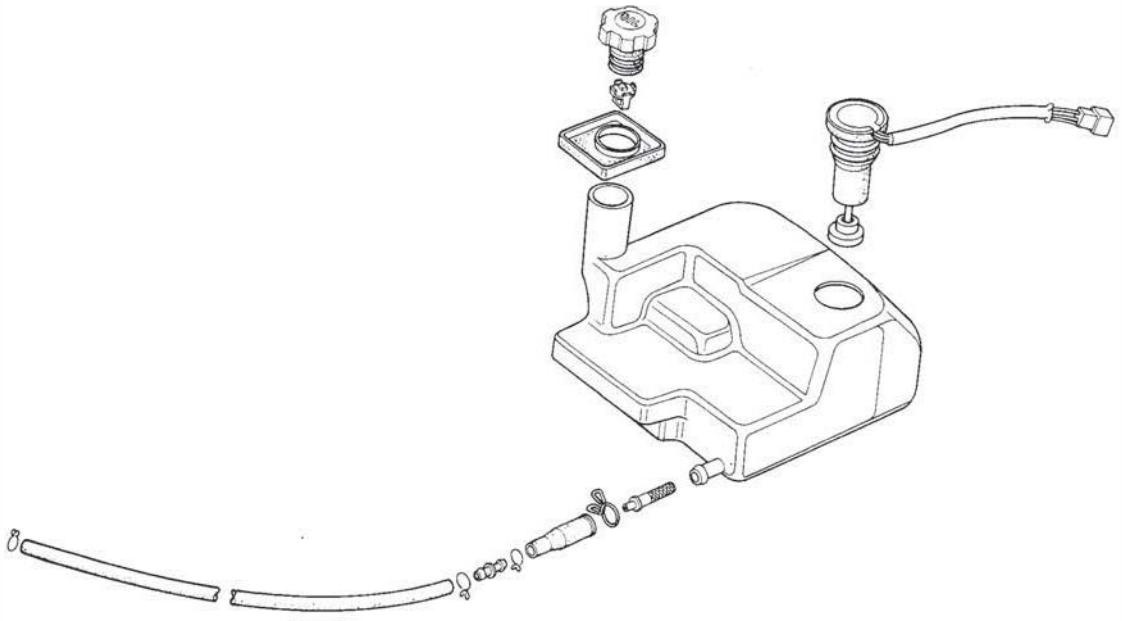
Upper bolt:	**30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)**
Lower bolt:	**20–30 N·m (2.0–3.0 kg-m, 14–22 ft-lb)**

Check the operation of the shock absorber by pressing down on the end of the frame several times.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.





Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

14. FUEL TANK/OIL TANK

SERVICE INFORMATION

GENERAL

WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Work in a well ventilated area. Do not smoke or allow flames or sparks in the work area.

TROUBLESHOOTING

Engine fails to start
1. No fuel in tank
2. Clogged fuel line
3. Clogged fuel strainer
4. Stuck fuel valve diaphragm

Mixture too lean
1. Clogged fuel tank cap breather hole
2. Clogged or collapsed fuel line
3. Clogged fuel strainer

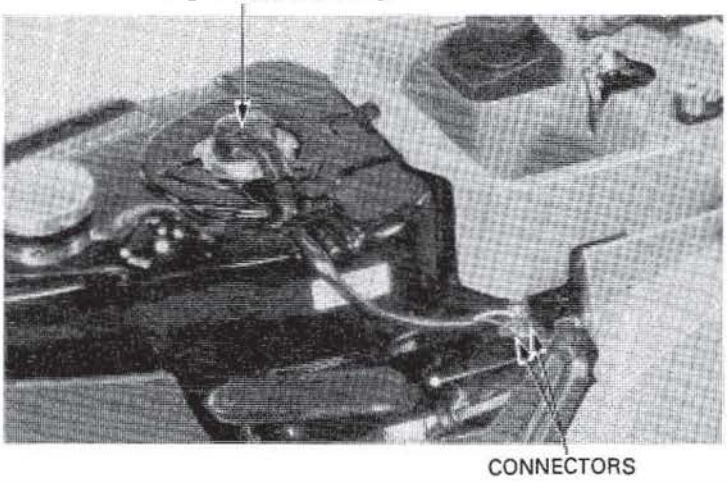
14

© HONDA MOTOR CO., LTD.

FUEL TANK

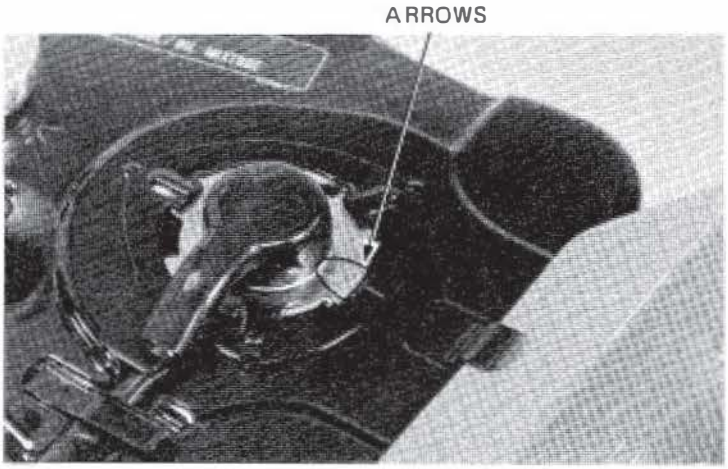
FUEL GAUGE SENSOR REMOVAL/ INSTALLATION

Raise the seat.
Disconnect the fuel gauge sensor wire connectors.
Remove the fuel gauge sensor by turning it counter-clockwise.



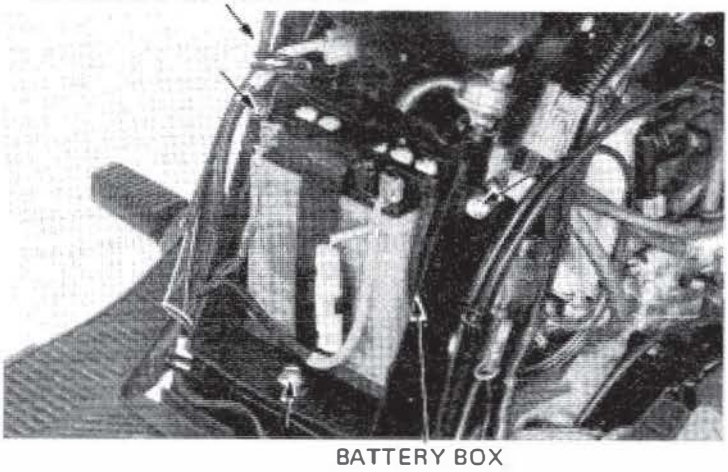
NOTE:

- Do not bend the float arm.
- Install the fuel gauge sensor with the arrow on the sensor aligned with the arrow on the fuel tank.



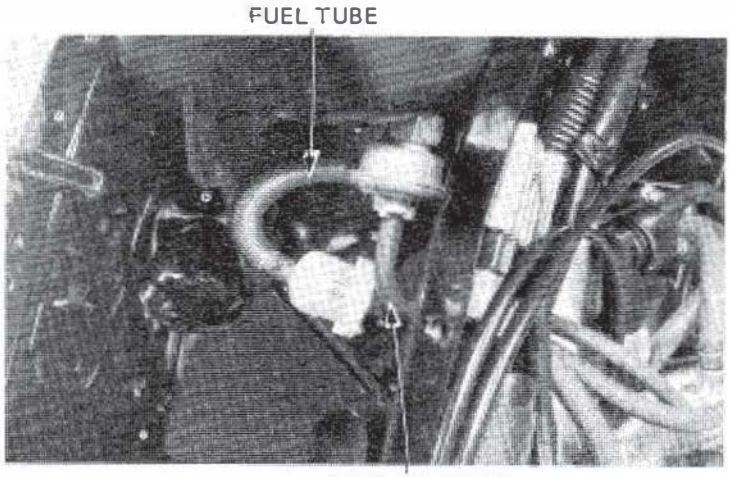
FUEL TANK REMOVAL

Remove the frame center and rear covers (Section 11).
Disconnect the resistor wire connector.
Remove the bolt and take out the battery.

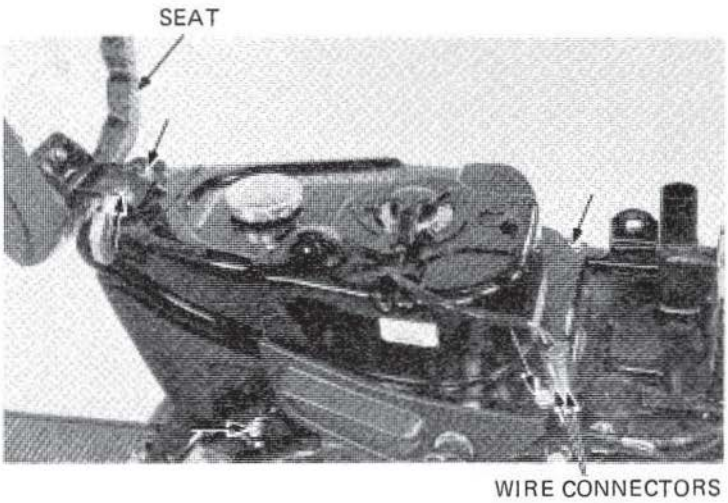


© HONDA MOTOR CO., LTD.

Disconnect the fuel and vacuum tubes.

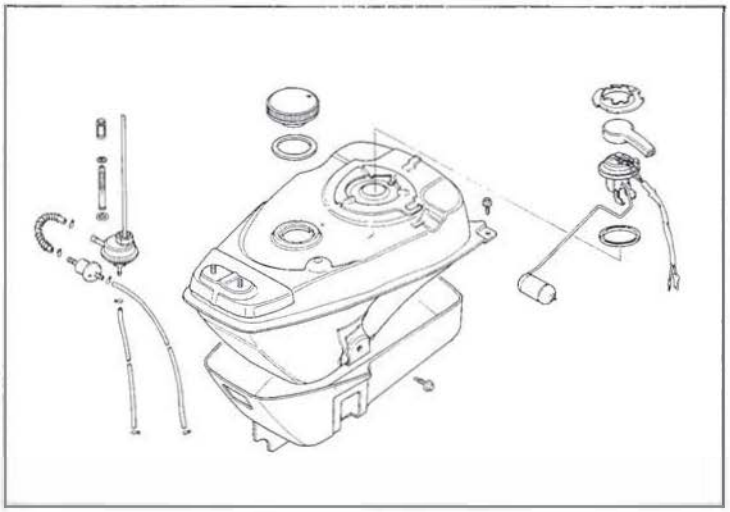


Remove the seat.
Disconnect the fuel gauge sensor wire connectors.
Remove the fuel tank mount bolts and remove the fuel tank.
Remove and clean the fuel strainer.
Remove the fuel gauge sensor (Page 14-2).
Check the fuel gauge sensor's operation (page 15-18).



FUEL TANK INSTALLATION

The installation sequence is essentially the reverse order of removal.

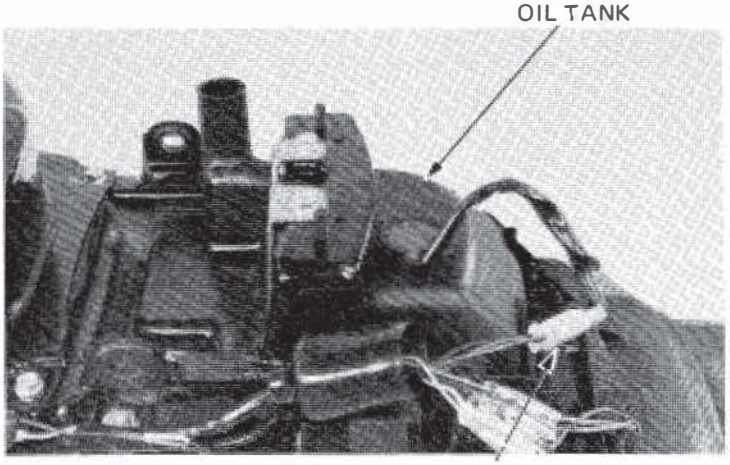


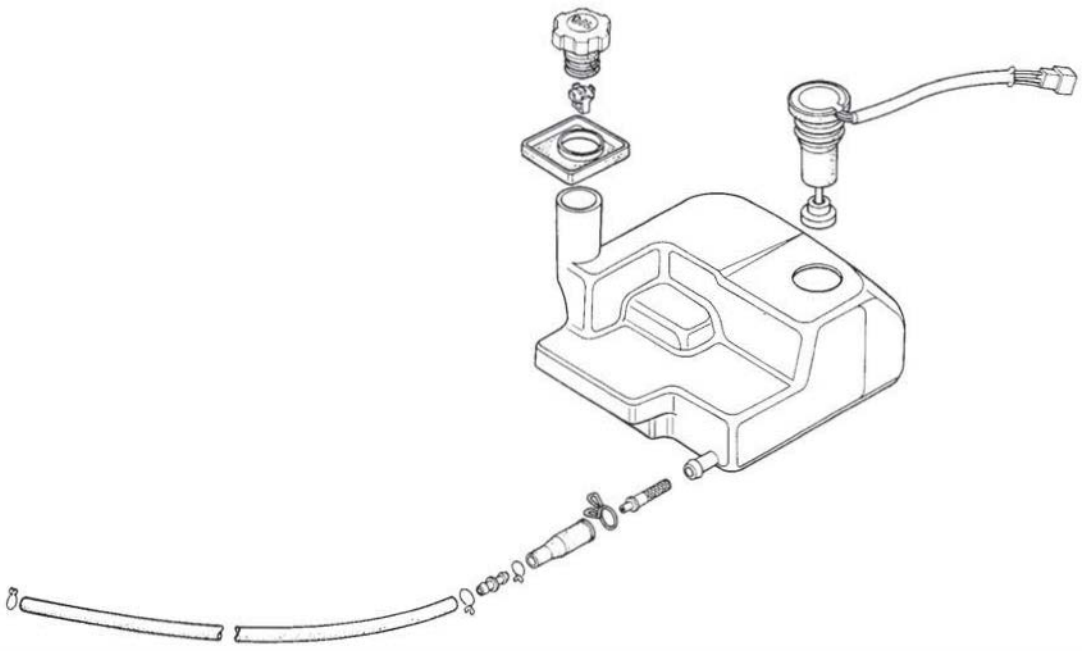
© HONDA MOTOR CO., LTD.

OIL TANK

REMOVAL/INSTALLATION

Remove the frame center and rear covers. (Section 11)
Drain oil from the oil tank.
Disconnect the oil level indicator switch coupler.
Remove the oil tank.
Clean the oil strainer (Page 3-6).
To install, reverse the foregoing removal procedure.
Bleed the oil line after installing the oil pump (Page 2-3).





© HONDA MOTOR CO., LTD.

15. ELECTRICAL EQUIPMENT

SERVICE INFORMATION

GENERAL

- Do not quick charge the battery. Quick charging may damage the battery.
- Remove the battery from the motorcycle for charging. Remove the cell caps before charging the battery.
- Do not smoke or have flames near a charging battery. The gas produced by a battery is very flammable and can explode.
- Ignition timing cannot be adjusted.
- If the timing is incorrect, inspect the CDI unit and pulse generator and replace any faulty parts.

SPECIFICATIONS

CHARGING SYSTEM

ITEM		SPECIFICATIONS
Battery	Capacity	12V 5AH
	Specific gravity	1.270–1.290at 20°C (68°F)
	Charging rate	0.5A max.
Alternator	Charging rpm	2,000 rpm max. 16.4V
	Capacity	0.9A min./4,000 rpm (17.7V)
		1.4A max./6,000 rpm (18.0V)

IGNITION SYSTEM

ITEM		SPECIFICATIONS	
Spark plug		NGK	ND
	Standard	BPR6HS	W20FPR
	For cold climate (Below 5°C, 41°F)	BPR5HS	W16FPR
	For extended high speed riding	BPR7HS	W22FPR
Spark plug gap		0.6–0.7 mm (0.024–0.028 in)	
Ignition coil resistance	Primary	0.2–0.3Ω	
	Secondary	3.4–4.2 kΩ	
Ignition timing		14° BTDC at 1,800 rpm	

15

© HONDA MOTOR CO., LTD.

TROUBLESHOOTING

CHARGING SYSTEM

No power
1. Dead battery
   - Low fluid level
   - Battery sulfation
   - Internally shorted battery
   - Charging system failure
2. Disconnected battery cable
3. Fuse burned out
4. Faulty ignition switch

Low power
1. Weak battery
2. Loose battery connection
3. Charging system failure

Intermittent power
1. Loose battery cable
2. Loose charging system connection
3. Loose connection or short circuit in lighting system
4. Loose ignition system connection

Charging system failure
1. Loose, broken or shorted wire or connection
2. Faulty regulator/rectifier
3. Faulty alternator

IGNITION SYSTEM

No spark at plug
1. Faulty spark plug
2. Poorly connected, broken or shorted wire
   - Between pulse generator and CDI unit
   - Between CDI unit and ignition coil
   - Between CDI unit and ignition switch
   - Between ignition coil and spark plug
3. Faulty ignition switch
4. Faulty ignition coil
5. Faulty CDI unit
6. Faulty pulse generator

Engine starts but turns poorly
1. Ignition primary circuit
   - Faulty ignition coil
   - Loose or bare wire or connector
   - Poorly contacted ignition switch
2. Ignition secondary circuit
   - Faulty ignition coil
   - Faulty spark plug
   - Faulty high tension wire
   - Poorly insulated plug cap
3. Improper ignition timing
   - Faulty pulse generator
   - Stator not installed properly
   - Faulty CDI unit

STARTING SYSTEM

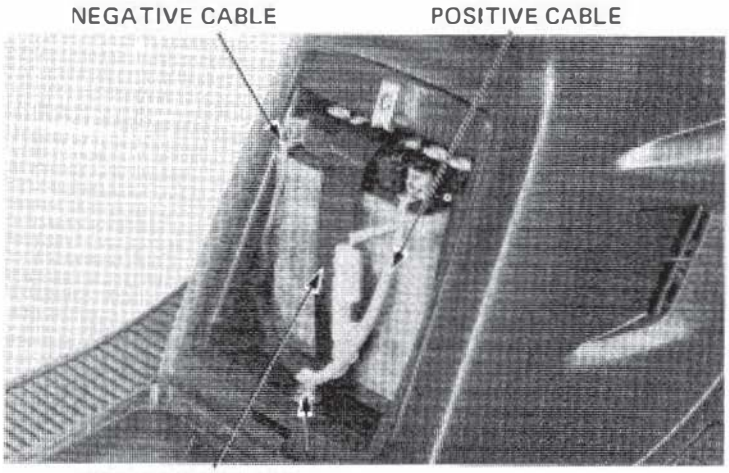
Starter won't turn
1. Fuse burned out
2. Weak battery
3. Faulty ignition switch
4. Faulty starter switch
5. Faulty front or rear stop switch
6. Faulty starter relay
7. Poorly connected, broken or shorted wire
8. Faulty starter motor

Lack of power
1. Weak battery
2. Loose or bare wire or connection
3. Foreign matter stuck in starter or starter gear

Engine does not crank-starter rotates
1. Faulty starter pinion
2. Low battery

Date of issue: May, 1983
© HONDA MOTOR CO., LTD.

BATTERY



REMOVAL/INSTALLATION

Remove the battery cover.
Remove the battery holder by removing the attaching bolt.
Disconnect the negative cable first.
Then disconnect the positive cable.
Remove the battery.
The installation sequence is essentially the reverse order of removal.

NOTE:

Connect the battery breather tube to the battery breather pipe securely.

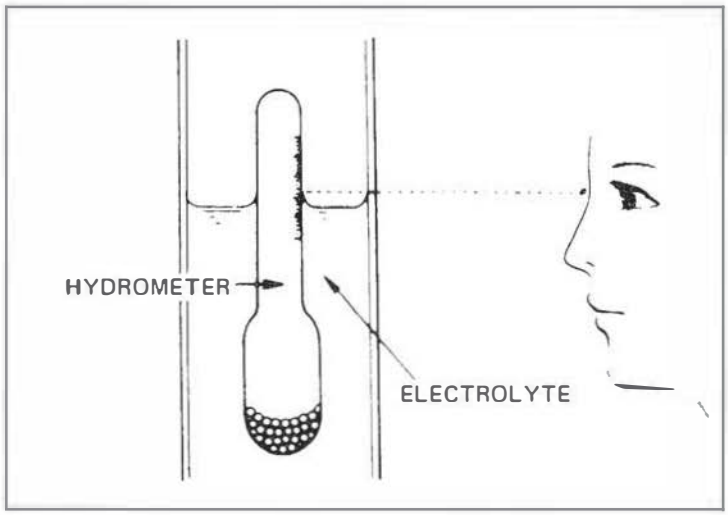
SPECIFIC GRAVITY TEST

Test each cell by drawing electrolyte into a hydrometer.

SPECIFIC GRAVITY (20°C, 68°F)

1.270–1.290	Fully charged
1.230 or below	Undercharged

The battery must be charged if the specific gravity falls below 1.230.

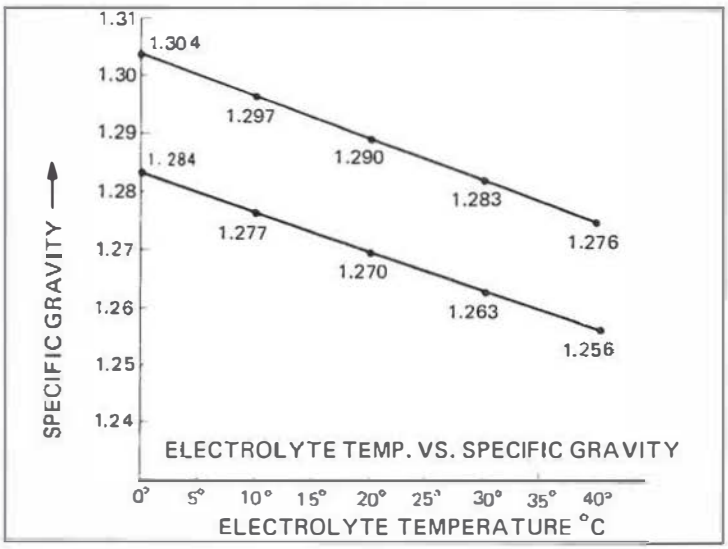


NOTE:

- The specific gravity varies with the temperature as shown. (Specific gravity changes by 0.007 for every 10°C).
- Replace the battery if sulfation has formed, or if the space below the cell plates is filled with sediment.

WARNING

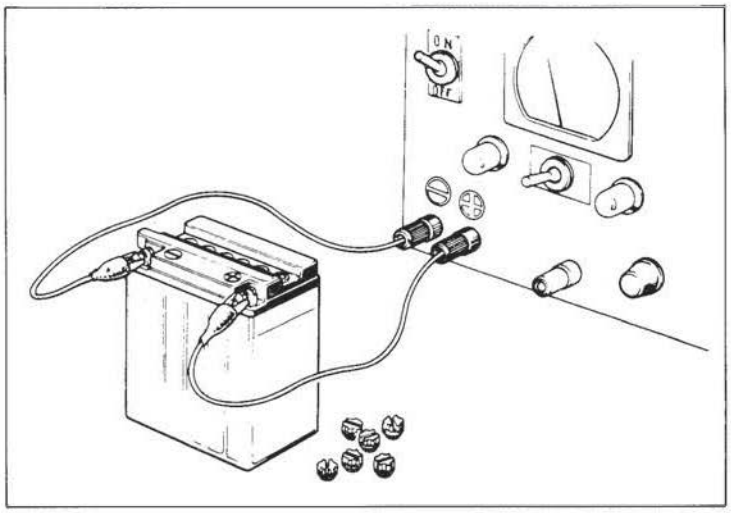
The battery contains sulfuric acid. Avoid contact with skin, eyes, or clothing. Antidote: Flush with water and get prompt medical attention.



© HONDA MOTOR CO., LTD.

BATTERY CHARGING

Remove the battery.
Remove the cell cap from the battery.
Connect the charger positive (+) cable to the battery positive (+) terminal.
Connect the charger negative (–) cable to the battery negative (–) terminal.



Charging current: **0.5 amperes maximum**

WARNING

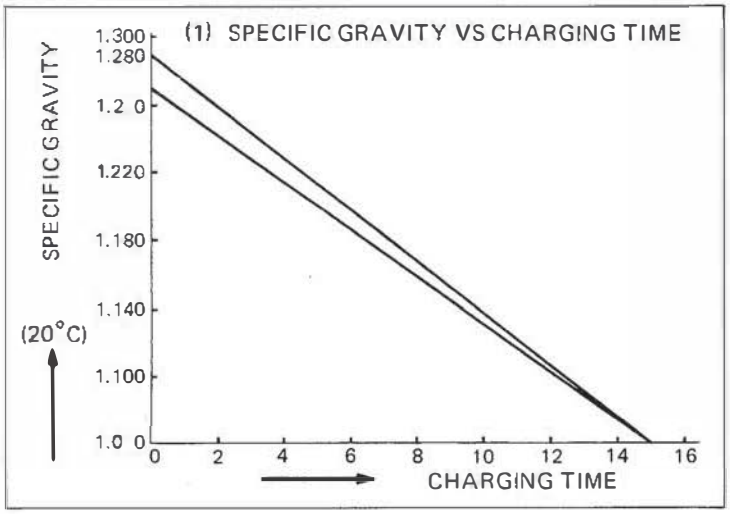
- *Keep flames and sparks away from a charging battery to prevent igniting the hydrogen gas produced by the battery.*
- *Turn power ON/OFF at the charger, not at the battery terminals to prevent sparks near the battery cells.*
- *Discontinue charging if the electrolyte temperature exceeds 45°C (117°F).*

CAUTION:

Quick charging should only be done in an emergency, slow charging is preferred.

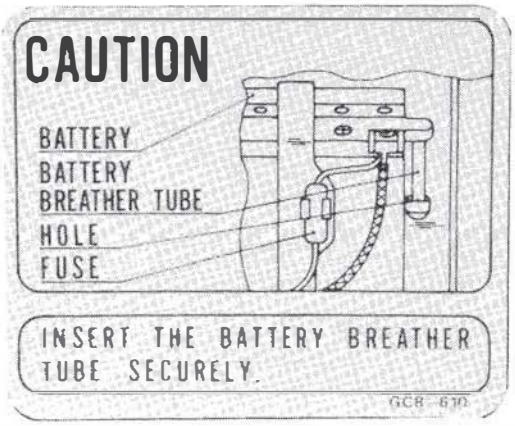
Charging time: **3–15 hours**

Charging:
Charge the battery at 0.5A until specific gravity is 1.270–1.290 (20°C, 68°F).



CAUTION:

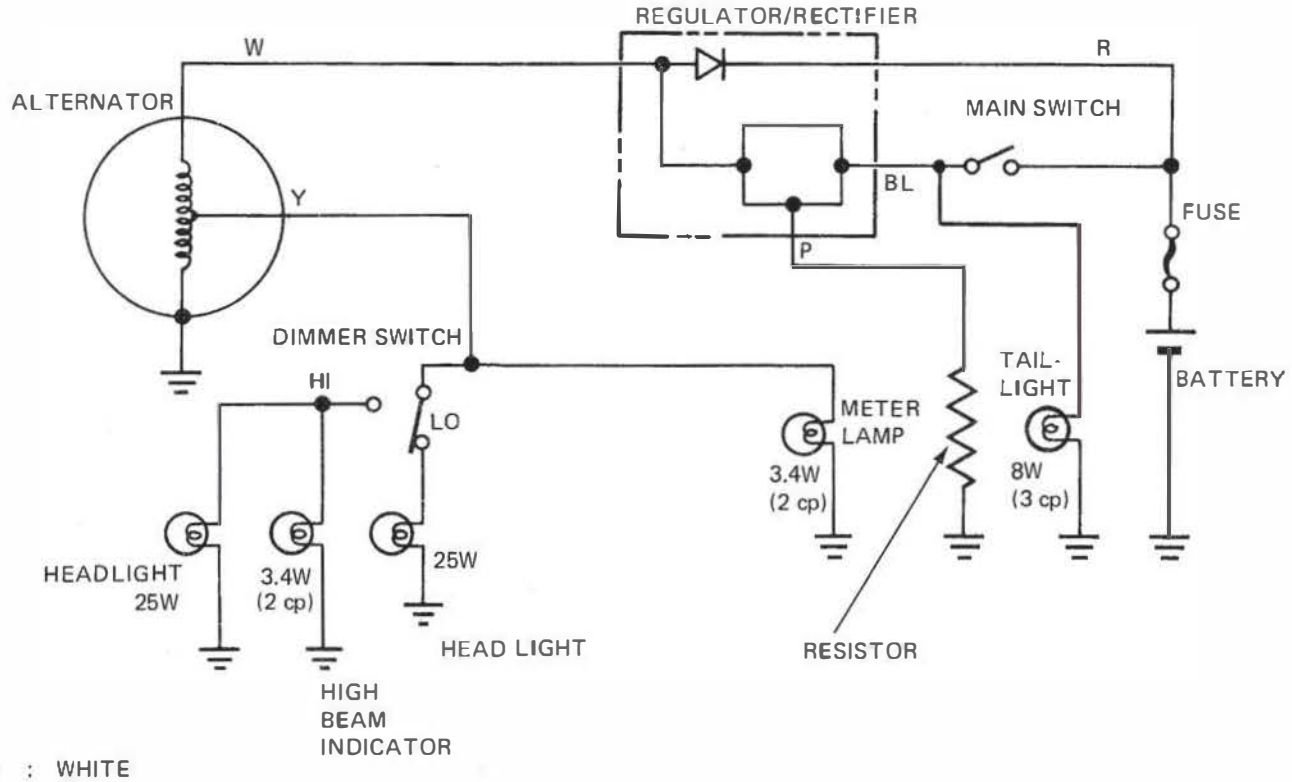
Check routing of the breather tube as shown on the battery caution label.



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

CHARGING SYSTEM

CHARGING CIRCUIT



W : WHITE
R : RED
BL : BLACK
P : PINK
Y : YELLOW

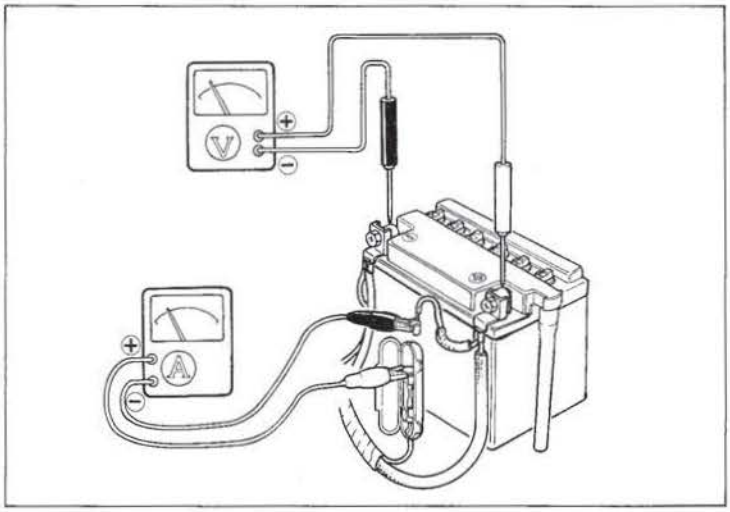
PERFORMANCE TEST

Warm up the engine.

NOTE:

> Use a fully charged battery to check the charging system output.

Disconnect the black wire lead from the regulator/rectifier coupler.
Open the fuse holder and disconnect the red wire from the holder.
Connect an ammeter and voltmeter as shown.
Start the engine and take meter readings.
The readings should match the chart.



TECHNICAL DATA

Charging rpm (Initial)	4,000 rpm	6,000 rpm
2,000 max.	0.9A min.	1.4A max.

If the readings are not within specifications, check the stator and regulator/rectifier.

© HONDA MOTOR CO., LTD.

ALTERNATOR INSPECTION

NOTE:

> This test can be made without removing the stator from the engine.

Remove the frame center cover (Section 11).
Disconnect the stator wire coupler.
Measure the resistances between the terminals as follows:

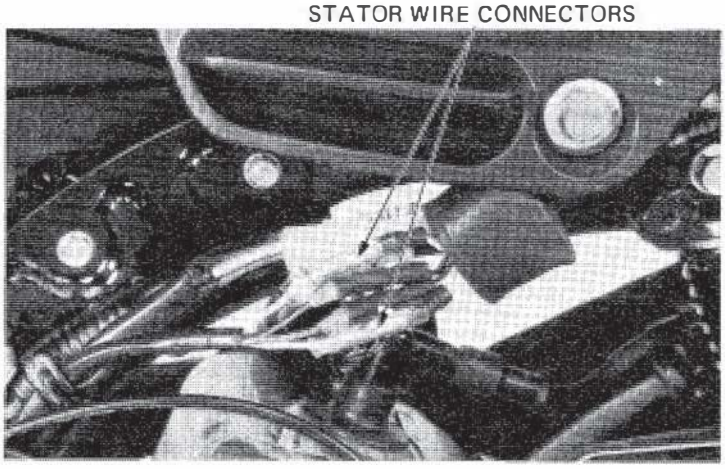
Yellow and engine ground	0.1–1.0 Ω
White and engine ground	0.2–2.0 Ω

NOTE:

> Measure the resistances in the x 1 Ω range.

Alternator removal/installation (Page 7-2, 7-4).

STATOR WIRE CONNECTORS



RESISTOR INSPECTION

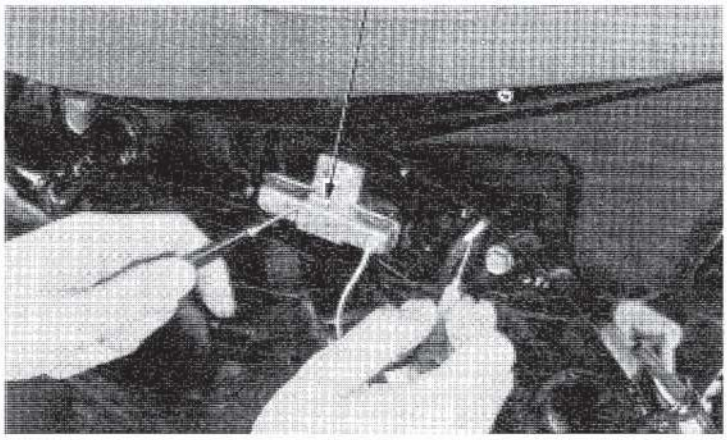
Remove the frame center cover (Section 11).
Measure the resistance between the resistor wire lead and any body ground.

RESISTANCE: 6.7 Ω

NOTE:

> A faulty or poorly grounded resistor can be a frequent cause of a blown headlight.

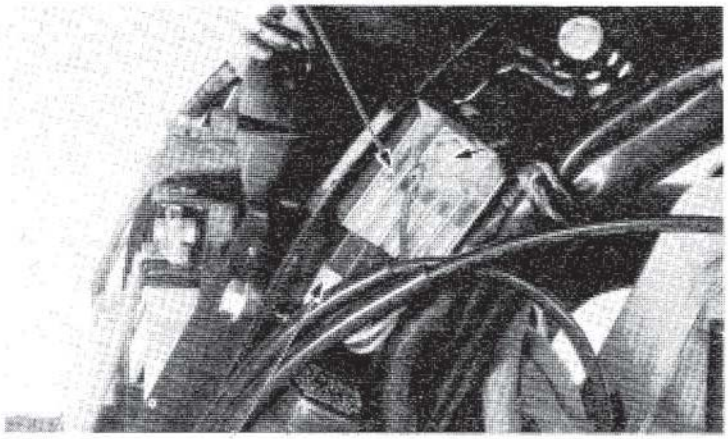
RESISTOR



REGULATOR/RECTIFIER INSPECTION

Remove the frame center cover (Section 11).
Disconnect the regulator/rectifier coupler.
Remove the regulator/rectifier by removing the attaching bolt.

REGULATOR/RECTIFIER



COUPLER

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

Measure the resistances between the terminals. Replace the regulator/rectifier with a new one if the readings do not fall within the limits shown in the table.

NOTE:

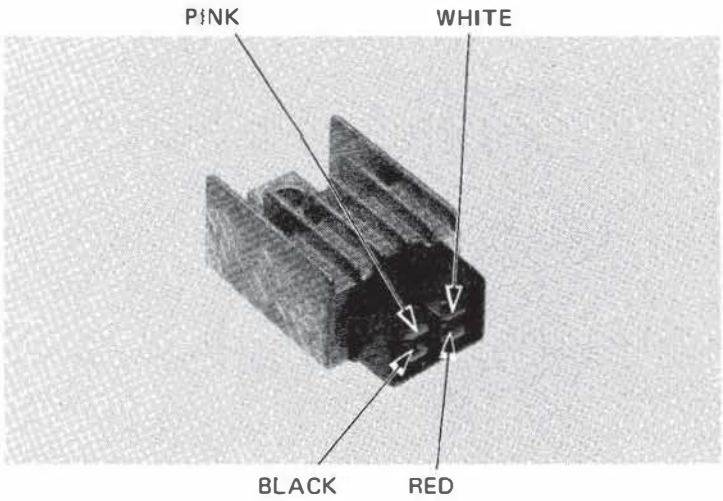
- For accurate testing, it is necessary to use a specified tester. Use of an improper tester or measurements in the improper range may give false readings.
- Use Sanwa Electric Tester SP-10D (07308–0020000), Kowa Electric Tester TH-5H or Kowa Digital Multi Tester KS-AHM-32-003 (U.S.A. only).

Measuring range:

SANWA ELECTRIC TESTER: x KΩ
KOWA ELECTRIC TESTER: x 100 Ω

(1) UNIT: KΩ

+ PROBE / – PROBE	PINK	WHITE	BLACK	RED
PINK		∞	1–5	∞
WHITE	∞		∞	0.5–10
BLACK	1–5	∞		∞
RED	∞	∞	∞	

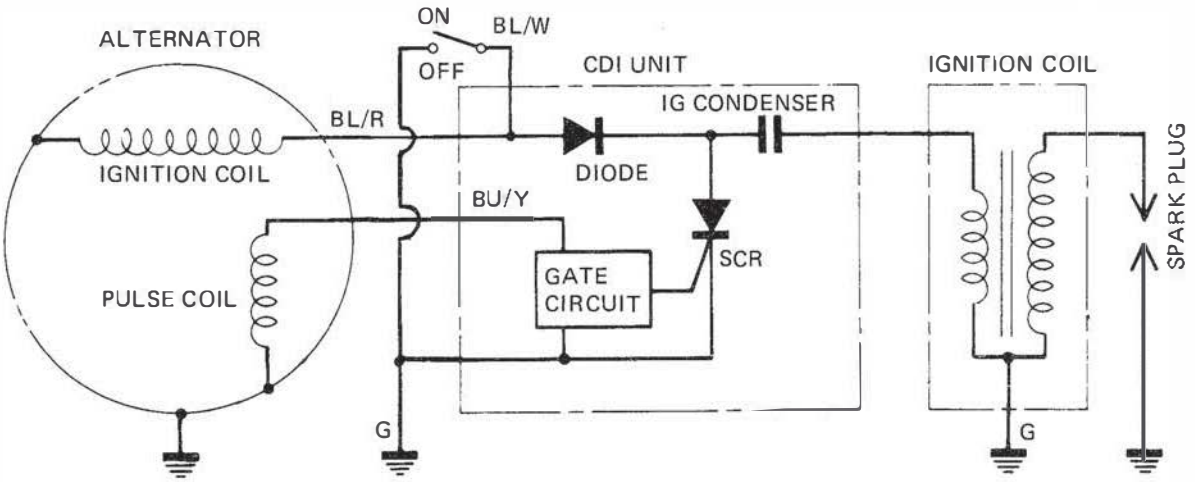


© HONDA MOTOR CO., LTD.

IGNITION SYSTEM

IGNITION SYSTEM CIRCUIT

BL : BLACK
Y : YELLOW
BU : BLUE
G : GREEN
R : RED
W : WHITE



SPARK PLUG

For spark plug gap inspection and adjustment, see Page 3-6.

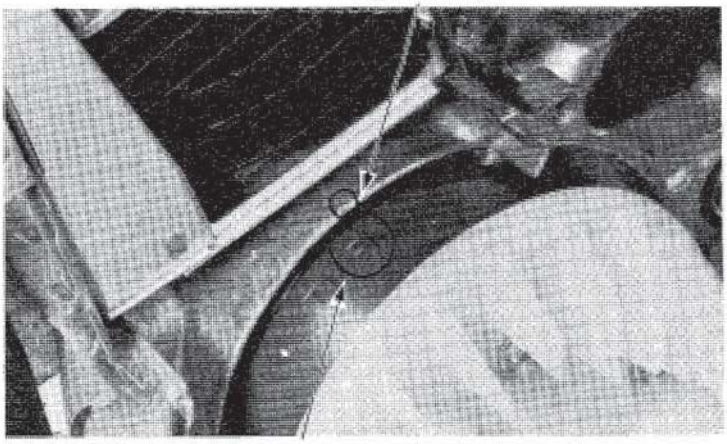
IGNITION TIMING

NOTE:

> The CDI ignition timing is not adjustable. If the ignition timing is not correct, check the CDI unit and alternator and replace any faulty parts.

Remove the fan cover and check the ignition timing with a timing light.
Timing is correct if the index mark aligns with the "F" mark (within 3°) at 1,800 rpm.

IGNITION TIMING: 14 ± 3° BTDC at 1,800 rpm

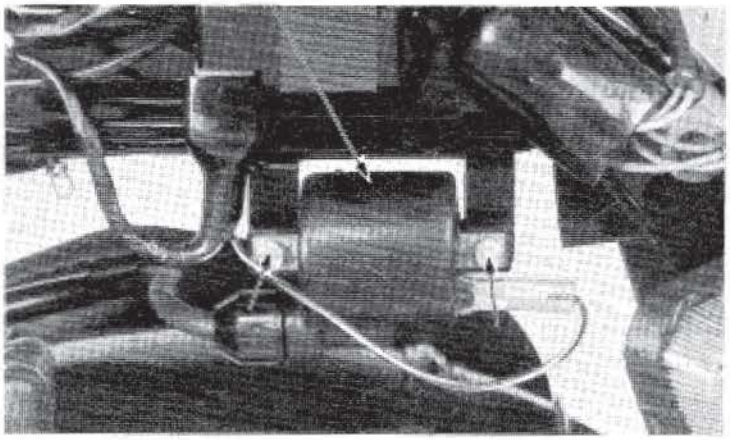


© HONDA MOTOR CO., LTD.

IGNITION COIL INSPECTION

Remove the left frame cover.
Disconnect the plug cap from the high tension wire while rotating the plug cap.

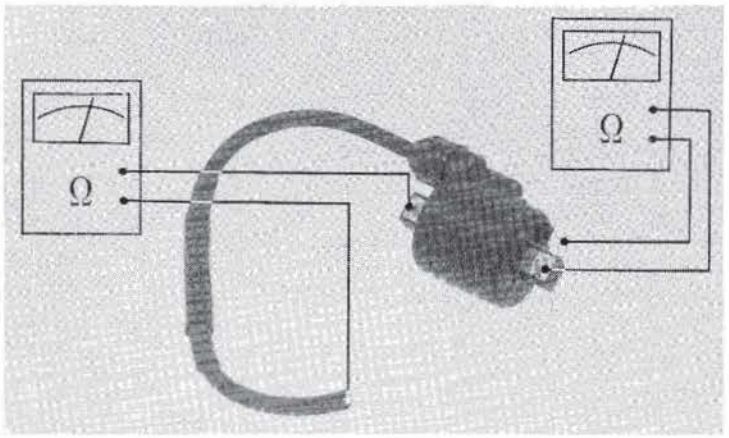
IGNITION COIL



Measure the resistances of the primary and secondary coils.

RESISTANCES:

Primary coil	**0.2–0.3 Ω**
Secondary coil	**3.4–4.2 kΩ**



PULSE GENERATOR INSPECTION

NOTE:

> It is not necessary to remove the stator to make this test.

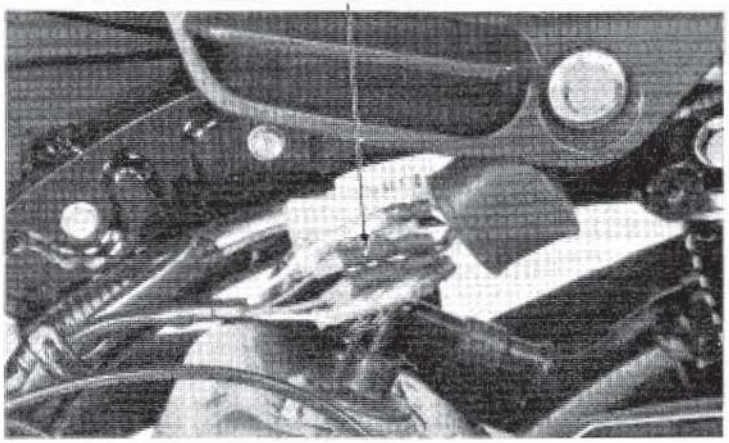
Remove the frame center cover (Section 11).
Disconnect the stator coupler.
Measure the resistances between the terminals with an ohmmeter.

Black/red – Engine ground	**50–300 Ω**
Blue/yellow – Body ground	**10–100 Ω**

NOTE:

> Measure the resistances in the x 1 Ω range.

PULSE GENERATOR CONNECTORS



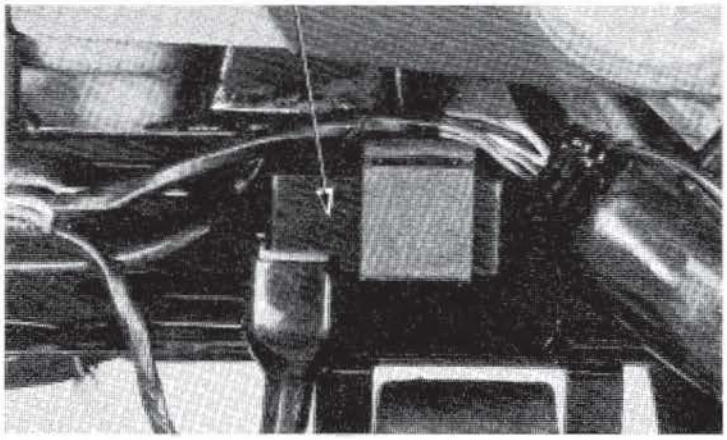
Alternator removal/installation (Page 7-2, 7-4).

© HONDA MOTOR CO., LTD.

CDI UNIT INSPECTION

Remove the left frame cover (Section 11).
Disconnect the CDI coupler and remove the CDI unit.

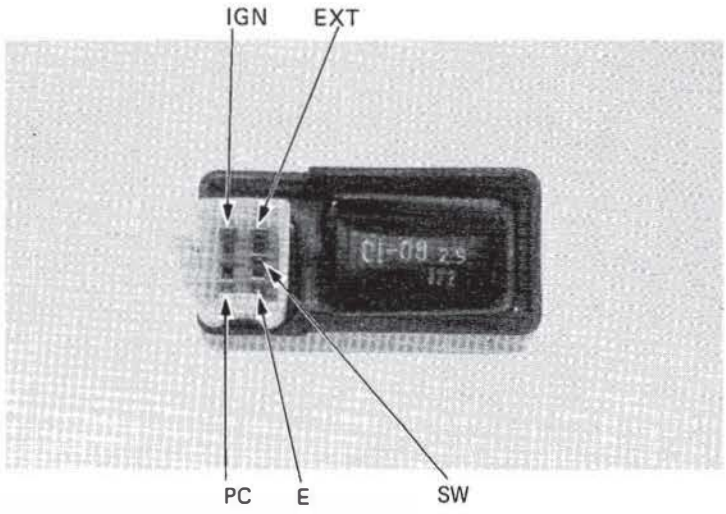
CDI UNIT



Measure the resistances between the terminals.
Replace the CDI unit if the readings do not fall within the limits in the table.

NOTE:

- For accurate testing, it is necessary to use a specified tester. Use of an improper tester or measurements in an improper range may give false readings.
- Use Sanwa Electric Tester SP-10D (07308–0020000), Kowa Electric Tester TH-5H or Kowa Digital Multi Tester KS-AHM-32-003 (U.S.A. only).
- In the table, "Needle swings then returns" indicates that there is a charging current applied to a condenser. The needle will then remain at " ∞ " unless the condenser is discharged.



NOTE:

- Use the x KΩ range for Sanwa Tester.
- Use the x 100 Ω for Kowa Tester.

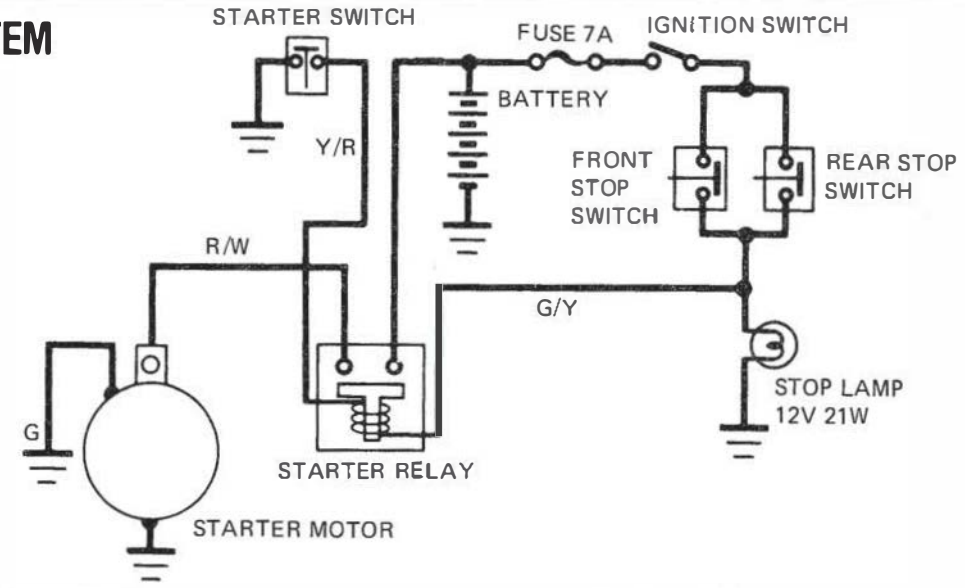
UNIT: KΩ

⊕ PROBE / ⊖ PROBE	SW	EXT	PC	E	IGN
SW		∞	∞	∞	∞
EXT	0.1–10		∞	∞	"Needle swings then returns"
PC	0.5–200	0.5–50		1–50	∞
E	0.2–30	0.1–10	∞		∞
IGN	∞	∞	∞	∞	

Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

STARTING SYSTEM

STARTING CIRCUIT

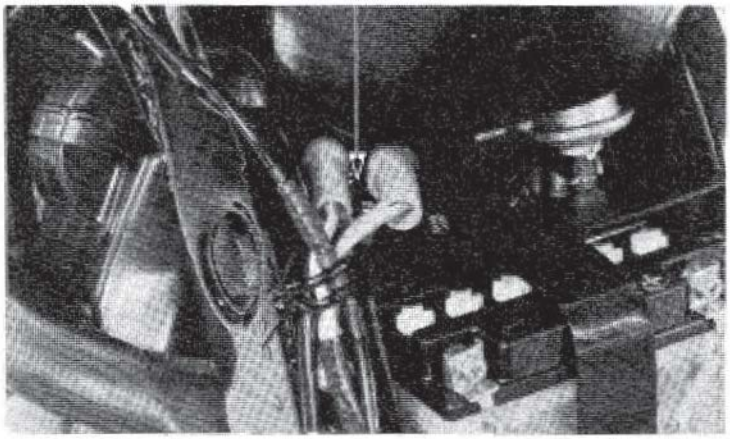


R : RED
Y : YELLOW
W : WHITE
G : GREEN

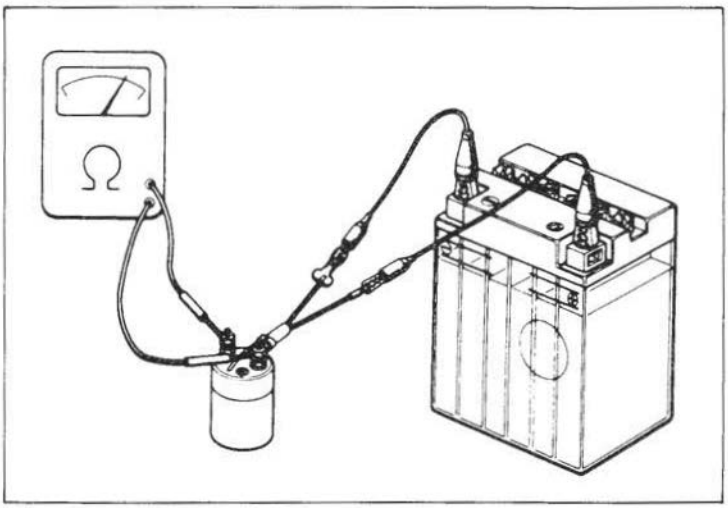
STARTER RELAY INSPECTION

The primary coil is normal if you hear a click when the starter button is depressed.

STARTER RELAY



Connect a 12V battery to the primary coil.
Check for continuity of the secondary terminals.
Replace the starter relay switch with a new one if there is no continuity.



STARTER RELAY REMOVAL

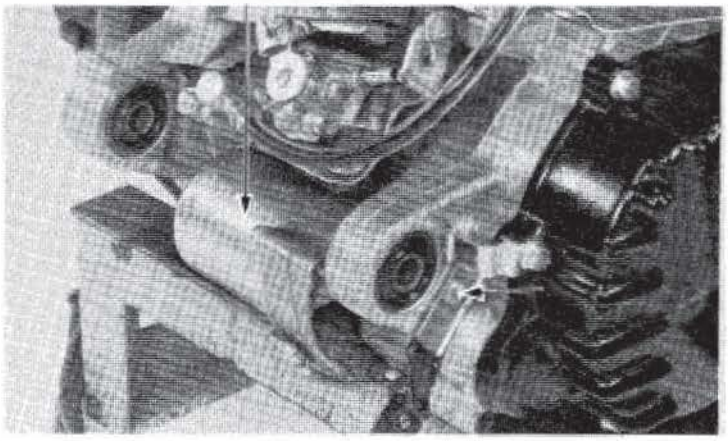
Remove the frame center cover (Section 11).
Remove the battery box (Page 15-4).
Remove the starter relay switch.

© HONDA MOTOR CO., LTD.

STARTER MOTOR REMOVAL

Remove the engine (Section 5).
Remove the two bolts attaching the starter motor and remove the starter motor.

STARTER MOTOR

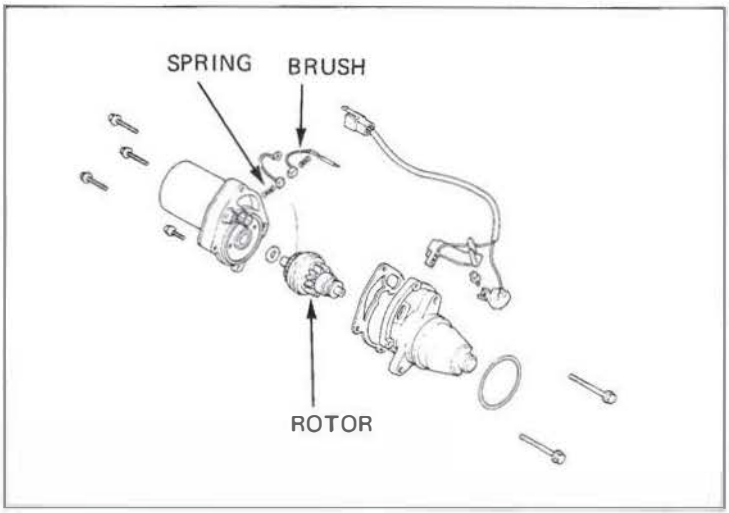


STARTER MOTOR DISASSEMBLY

Disconnect the starter wires.

NOTE:

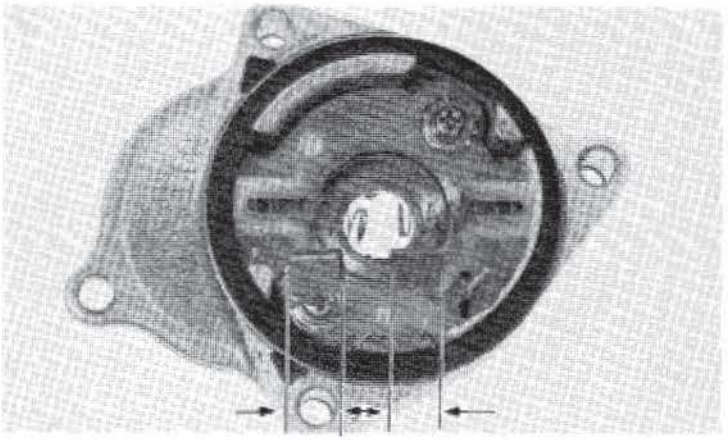
- The brush springs will pop out when removing the brush holder plate.
- Record the number and location of the commutator thrust washers.



BRUSH INSPECTION

Measure the length of each brush.

SERVICE LIMIT: 3.0 mm (0.12 in)



Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

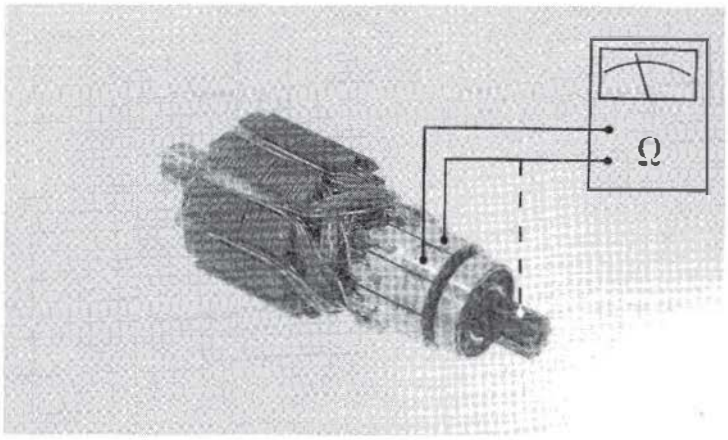
COMMUTATOR INSPECTION

Check the commutator for discoloration and other visual faults. Blackened adjacent segments are an indication of a shorted circuit.

NOTE:

> Do not use sand paper to clean the commutator.

Check for continuity between segments, and commutator and shaft. The commutator is normal if there is continuity between the segments. There should be no continuity between the segments. There should be no continuity between the commutator and shaft.



STARTER MOTOR ASSEMBLY

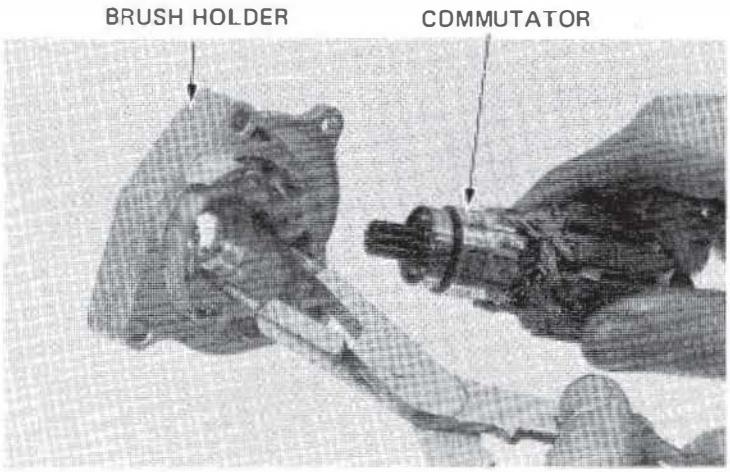
Install the brush springs and brushes in the holder plate.
Install the commutator and thrust washers while extending the brushes outward.

NOTE:

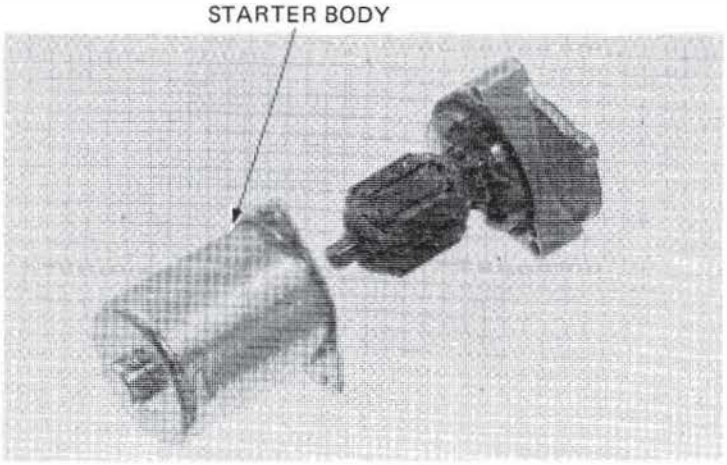
> Note the number and location of the thrust washers.

CAUTION:

> *Check that there is no foreign material inside the starter body.*

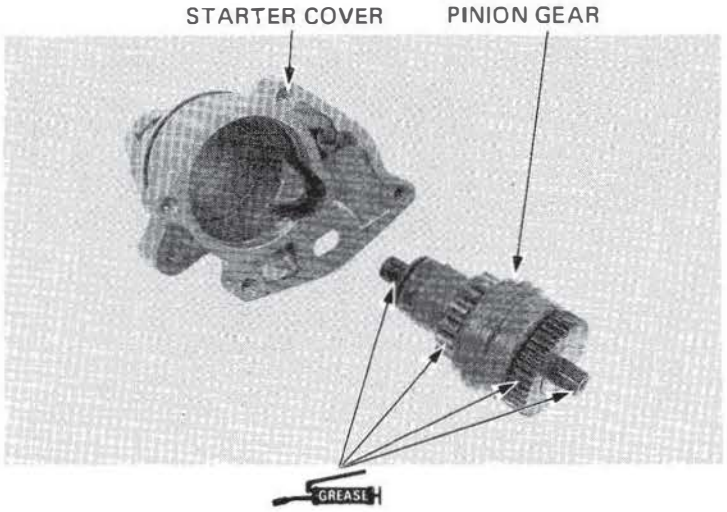


Install the commutator with the brush holder into the starter body.



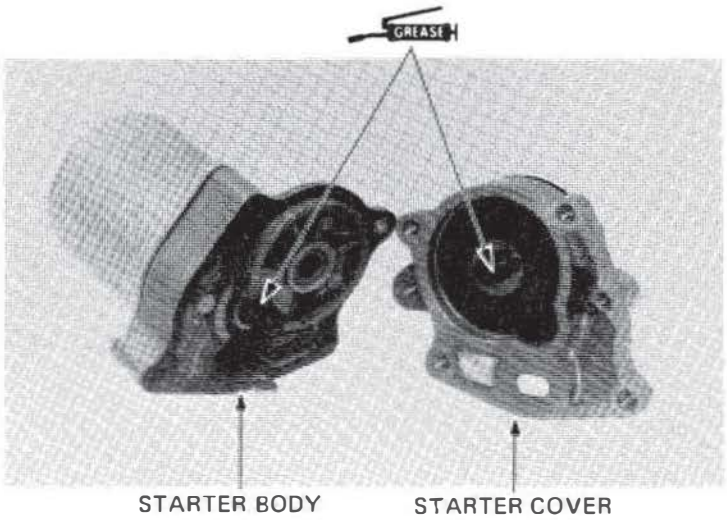
© HONDA MOTOR CO., LTD.

Lubricate the starter pinion with clean grease.
Install the pinion and starter cover.



Lubricate the gear on the starter body and install the starter motor cover on the body.

Connect the starter wires.

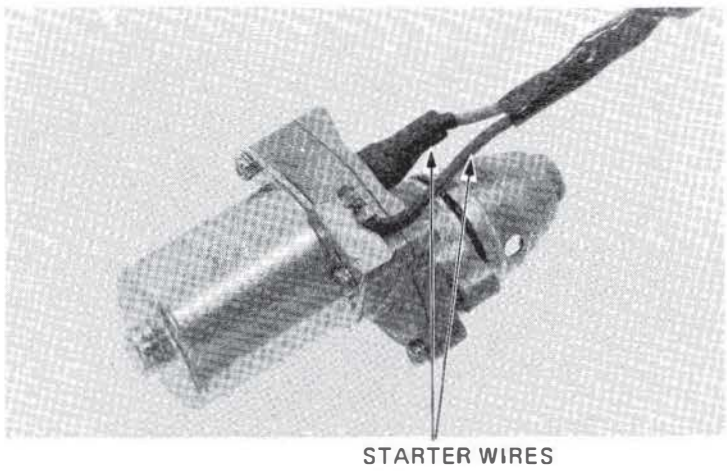


STARTER MOTOR INSTALLATION

NOTE:

> Before installing the starter, test for operation by connecting the starter coupler to the wire harness.

Install the starter motor in the reverse order of removal.
Secure the wires with the wire clamps.
Install the engine (Section 5).

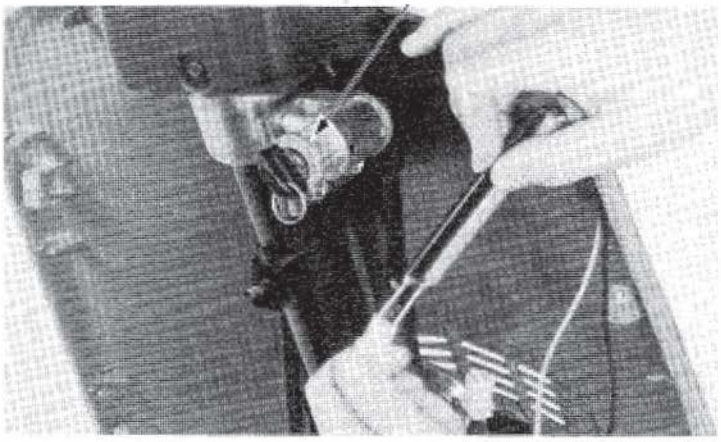


Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

SWITCHES/HORN

Remove the handlebar lower cover and glovebox.
Check the continuity of each switch.
Continuity should exist between color coded wires indicated by interconnected circles on each chart.

IGNITION SWITCH



IGNITION SWITCH

COLOR CODE	RED	BLACK	BLACK/ WHITE	GREEN
	BAT 1	BAT2	IG	E
ON	○——	——○		
OFF			○——	——○
LOCK				

TURN SIGNAL SWITCH

COLOR CODE	GRAY	LIGHT BLUE	DRANGE
	W	R	L
R	○——	——○	
N			
L	○——	———	——○

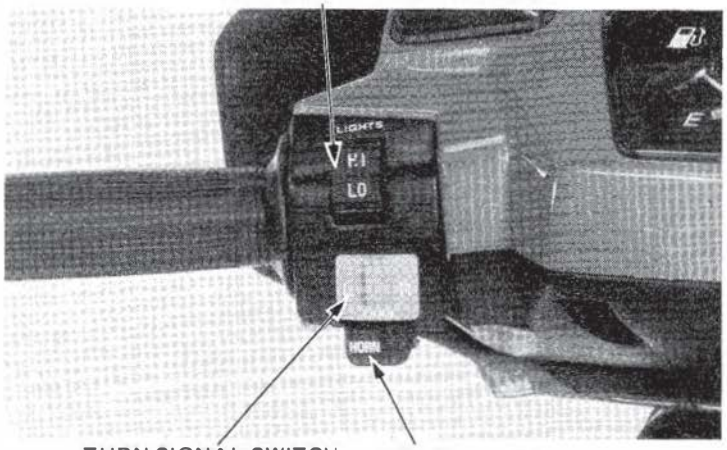
HORN SWITCH

COLOR CODE	LIGHT BLUE	BLACK
	HD	BAT2
FREE		
PUSH	○——	——○

HEADLIGHT HI-LOW SWITCH

COLOR CODE	BROWN	BLUE	WHITE
	HL	Hi	Lo
Hi	○——	——○	
(N)	○——	——○	——○
Lo	○——	———	——○

HEADLIGHT HI-LOW SWITCH

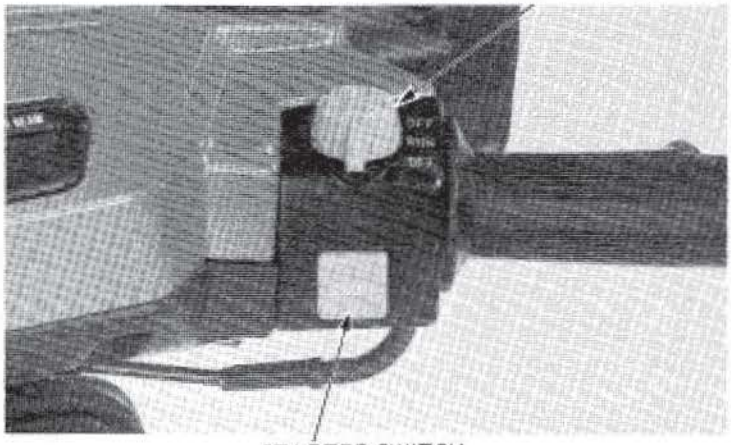


© HONDA MOTOR CO., LTD.

ENGINE STOP SWITCH

COLOR CODE	BLACK/ WHITE	GREEN
	IG	E
OFF	○	○
RUN		
OFF	○	○

ENGINE STOP SWITCH

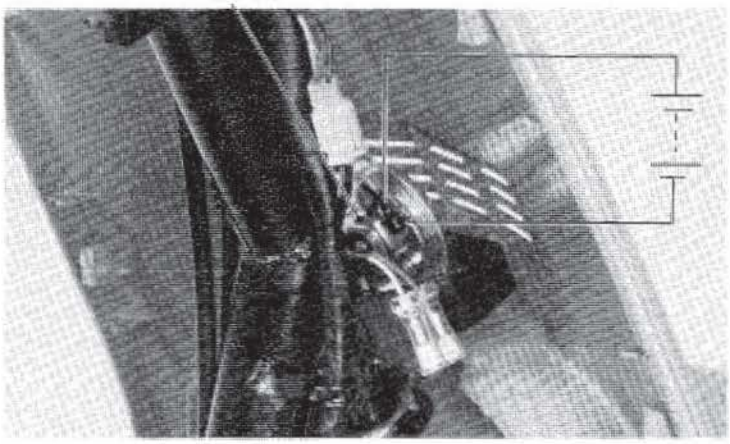


STARTER SWITCH

STARTER SWITCH

COLOR CODE	YELLOW/ RED	GREEN
	ST	E
FREE		
PUSH	○	○

HORN



FRONT/REAR STOPLIGHT SWITCH

The switch is normal if there is continuity when the brake lever is applied.
The switches are not adjustable.

HORN

The horn is normal if it sounds when a 12 V battery is connected across the terminals.

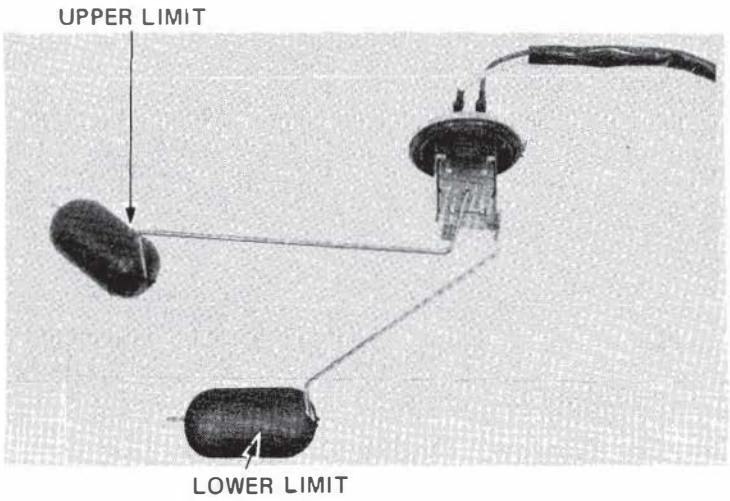
Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

FUEL GAUGE SENSOR

FUEL GAUGE SENSOR INSPECTION

Remove the sensor from the fuel tank (Page 14-2). Measure the resistances between the terminals with the float at the UPPER (FULL) and LOWER (EMPTY) positions.

Float position	Resistance
UPPER (FULL)	4–10 Ω
LOWER (EMPTY)	97.5–107.5 Ω



FUEL GAUGE INSPECTION

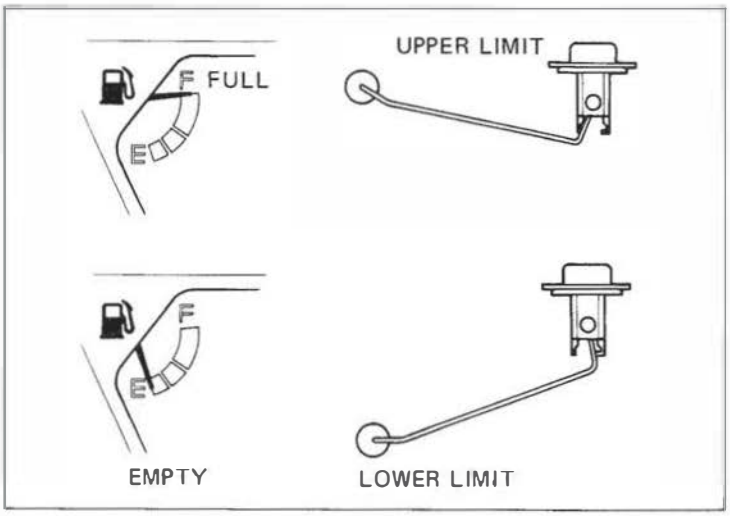
Connect the wire connectors and turn the ignition switch ON.

NOTE:

> Before performing the following test, operate the turn signals to determine that the battery circuit is normal.

Check the gauge needle for correct indication by moving the float up and down.

Float position	Needle Position
FLOAT AT UPPER LIMIT	F (FULL)
FLOAT AT LOWER LIMIT	E (EMPTY)



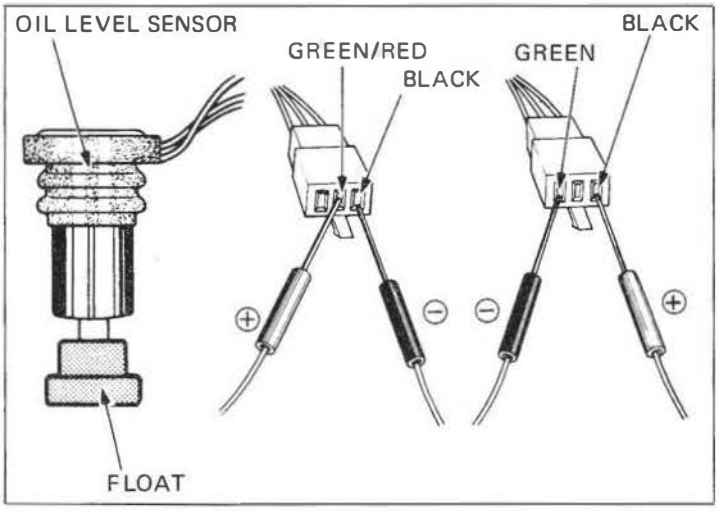
© HONDA MOTOR CO., LTD.

OIL LEVEL INDICATOR UNIT

OIL LEVEL SENSOR INSPECTION

Disconnect the coupler and remove the sensor. Lower the float fully until it will no longer go. Measure the resistances between the terminals as shown.

Terminal	Resistance
Green/Red (+) to Black (–)	5–15 Ω
Green (–) to Black (+)	∞



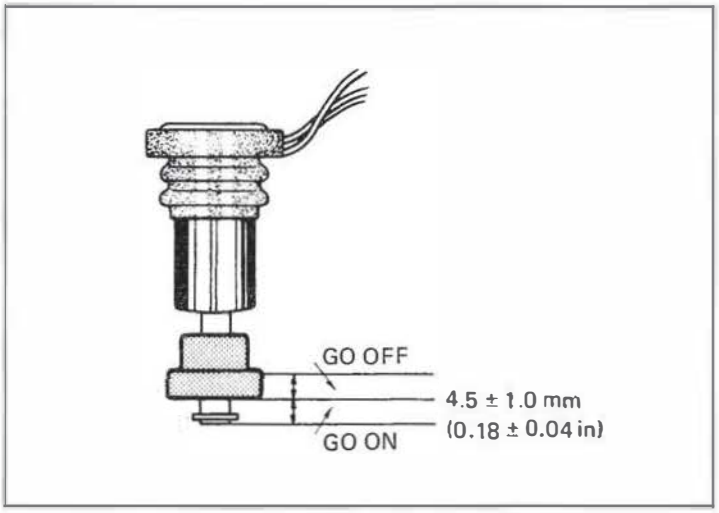
OIL LEVEL INDICATOR SWITCH INSPECTION

Connect the coupler and turn the ignition switch ON. With the float raised fully, measure the resistance between the terminals.

Green/Red (+) to Black (–)	340 Ω approx.

NOTE:

Operate the turn signals to see that the battery circuit is normal, then perform the following inspection.

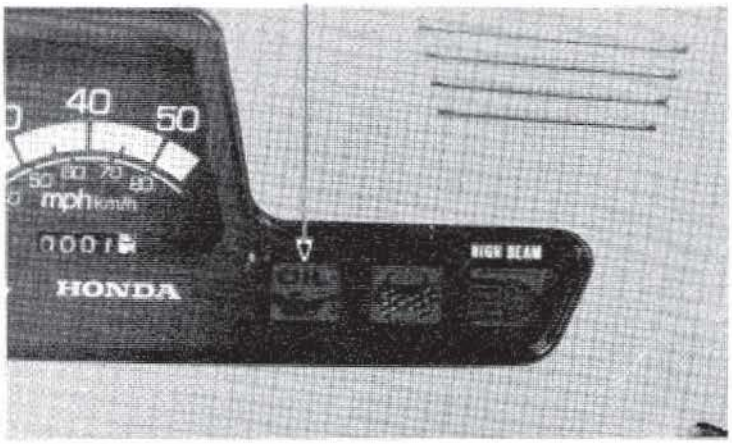


Raise and lower the float to make sure that the oil level indicator lamp blinks.

NOTE:

Should the lamp fail to go on and go out as the float is moved up and down, check for loose connections and repeat the above procedure.

OIL LAMP

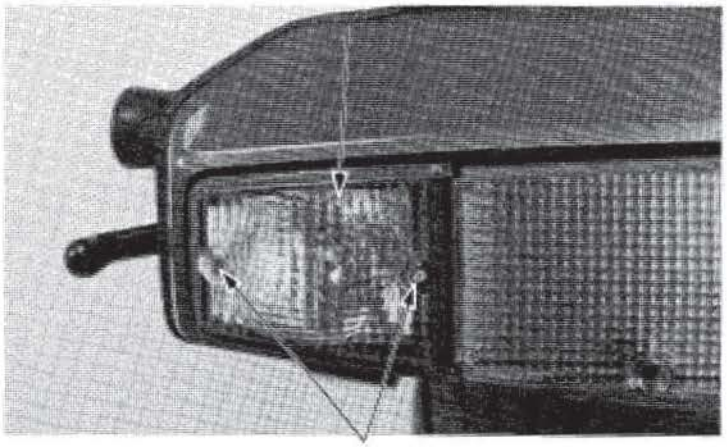


© HONDA MOTOR CO., LTD.

TURN SIGNAL BULB REPLACEMENT

Remove the turn signal lenses by removing the screws.

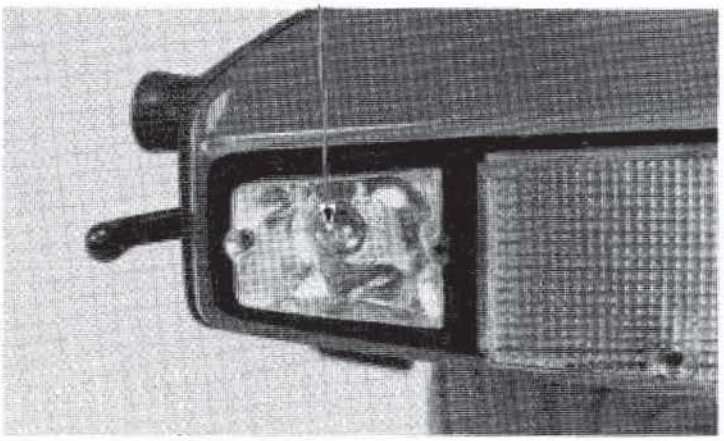
TURN SIGNAL LENS



SCREWS

Replace the bulb with a new one.
Install the lens, being careful not to overtighten the screws.

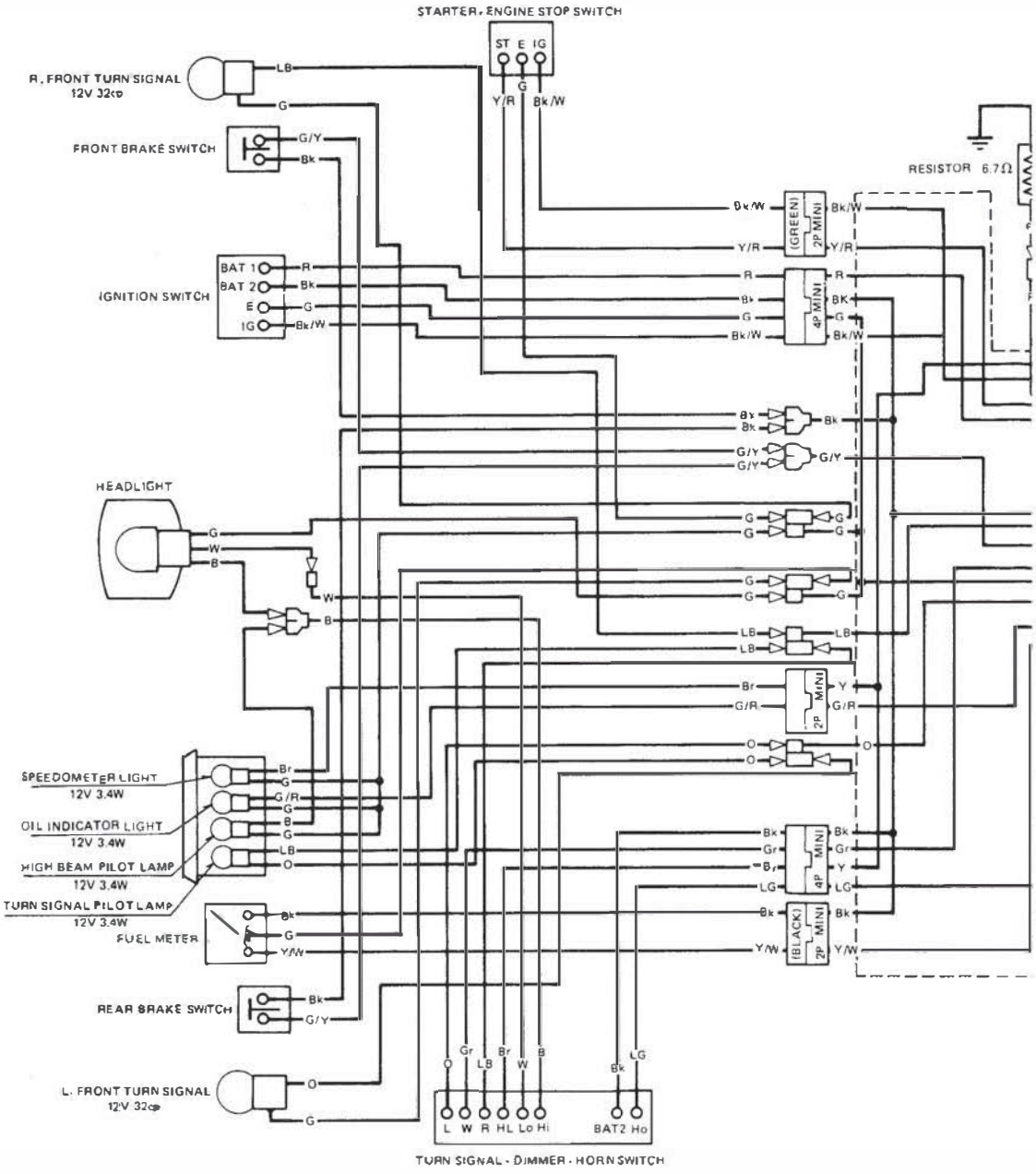
BULB



© HONDA MOTOR CO., LTD.

HONDA
NH80

1983:



SWITCH CONTINUITY

TURN SIGNAL SWITCH

	W	R	L
R	○	○	
N			
L	○		○
COLOR	Gr	LB	O

IGNITION SWITCH

	BAT 1	BAT 2	IG	E
ON	○	○		
OFF			○	○
COLOR	R	Bk	Bk/W	G

HORN BUTTON SWITCH

	Ho	BAT 2
FREE		
PUSH	○	○
COLOR	LB	Bk

DIMMER SWITCH

		HL	Hi	Lo
ON	HI	○	○	
	(N)	○	○	○
	LO	○		○
COLOR		Br	B	W

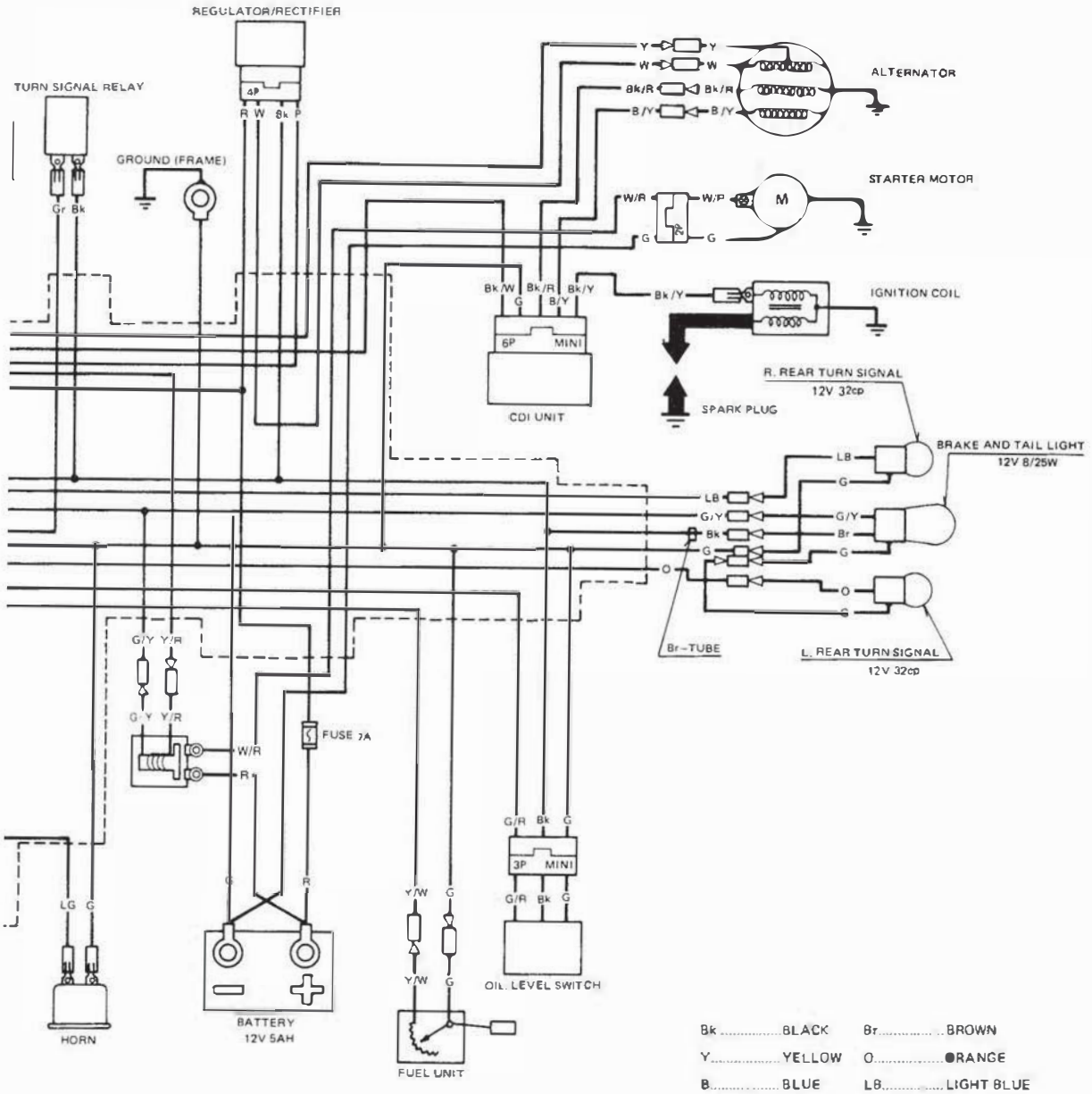
STARTER SWITCH

	ST	E
FREE		
PUSH	○	○
COLOR	Y/R	G

Date of Issue: November, 1983

© American Honda Motor Co., Inc. 1983 - All Rights Reserved

16. WIRING DIAGRAM



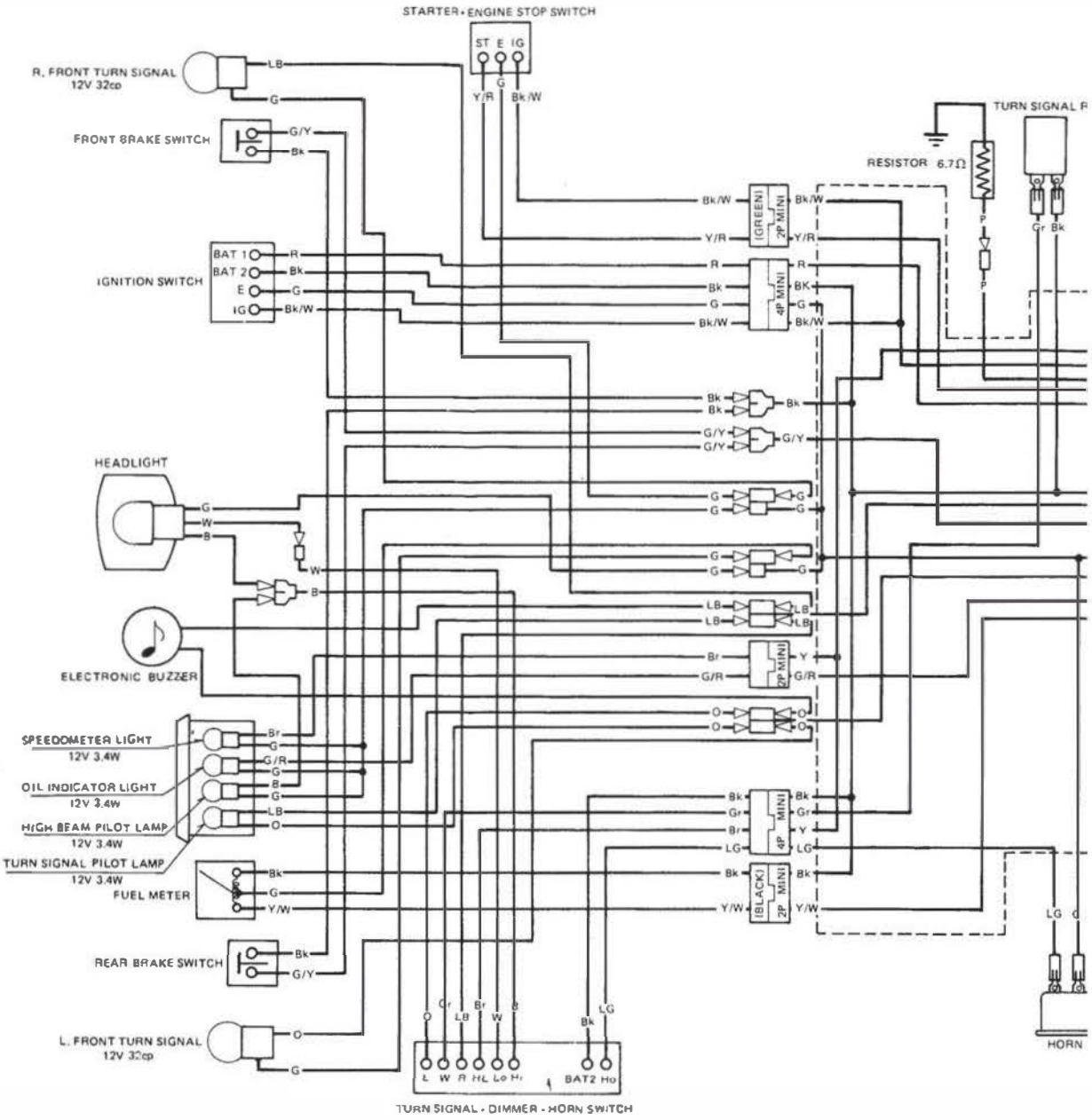
Bk	BLACK	Br	BROWN
Y	YELLOW	O	ORANGE
B	BLUE	LB	LIGHT BLUE
G	GREEN	LG	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

ENGINE STOP SWITCH

	IG	E
OFF	○	○
RUN		
OFF	○	○
COLOR	Bk/W	G

16

1984:



SWITCH CONTINUITY

TURN SIGNAL SWITCH

	W	R	L
R	○	○	
N			
L	○		○
COLOR	Gr	LB	O

IGNITION SWITCH

	BAT1	BAT2	IG	E
ON	○	○		
OFF			○	○
COLOR	R	Bk	Bk/W	G

HORN BUTTON SWITCH

	Ho	BAT2
FREE		
PUSH	○	○
COLOR	LB	Bk

DIMMER SWITCH

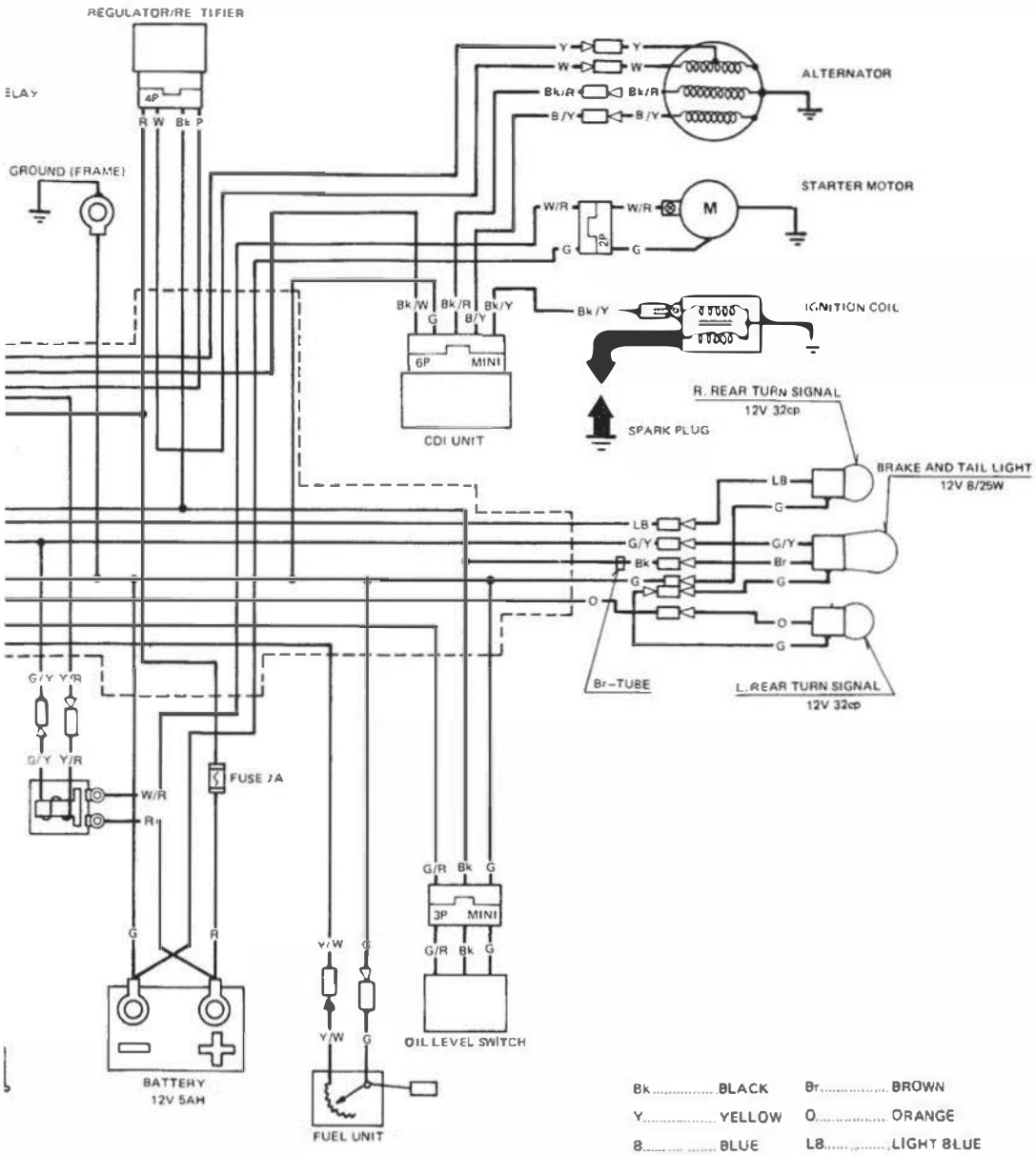
		HL	Hi	Lo
ON	HI	○	○	
	(N)	○	○	○
	LO	○		○
COLOR		Br	B	W

STARTER SWITCH

	ST	E
FREE		
PUSH	○	○
COLOR	Y/R	G

ENGINE ST

OFF	
RUN	
OFF	
COLOR	



Bk	BLACK	Br	BROWN
Y	YELLOW	O	ORANGE
B	BLUE	LB	LIGHT BLUE
G	GREEN	LG	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

6

© American Honda Motor Co., Inc. 1983 - All Rights Reserved

ENGINE

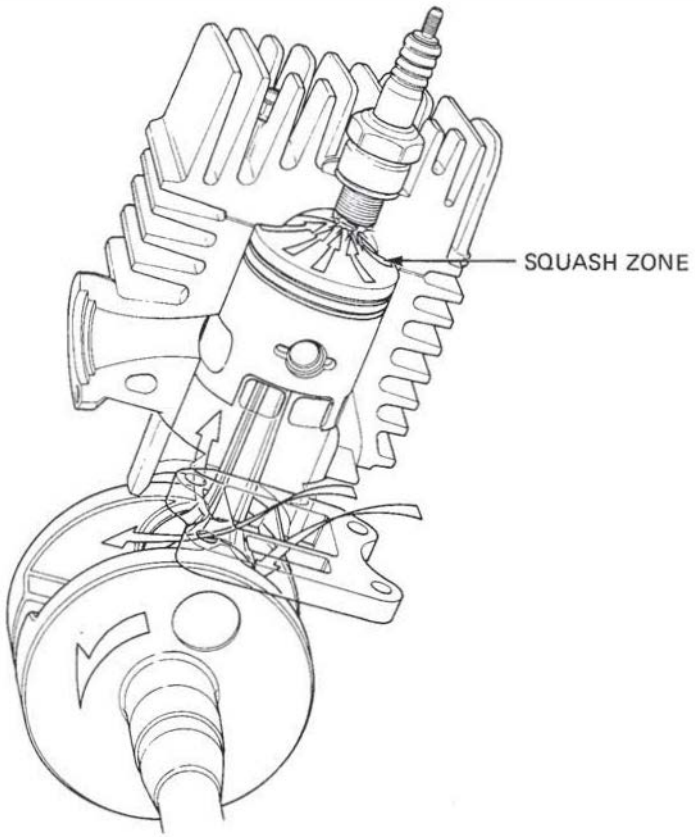
The features of the NH80 engine described below all contribute to meet United States emissions standards, and to provide better power and fuel economy than comparable engines in its displacement category.

5-SCAVENGE PORTS

The NH80 engine has 5-scavenge ports. These ports are especially designed to swirl the incoming fuel-air mixture into the combustion chamber. This swirl effect causes turbulence that will give the most efficient combustion. This works with the special designs of the nozzle type exhaust port, piston and combustion chamber.

PISTON/COMBUSTION CHAMBER

The piston top has a rim around it to help maintain turbulence during the engine compression stroke. The turbulence is also aided by the semi-spherical shape of the combustion chamber. The chamber's shape and centrally located spark plug provide a fast smooth combustion process under all loads and engine speeds.

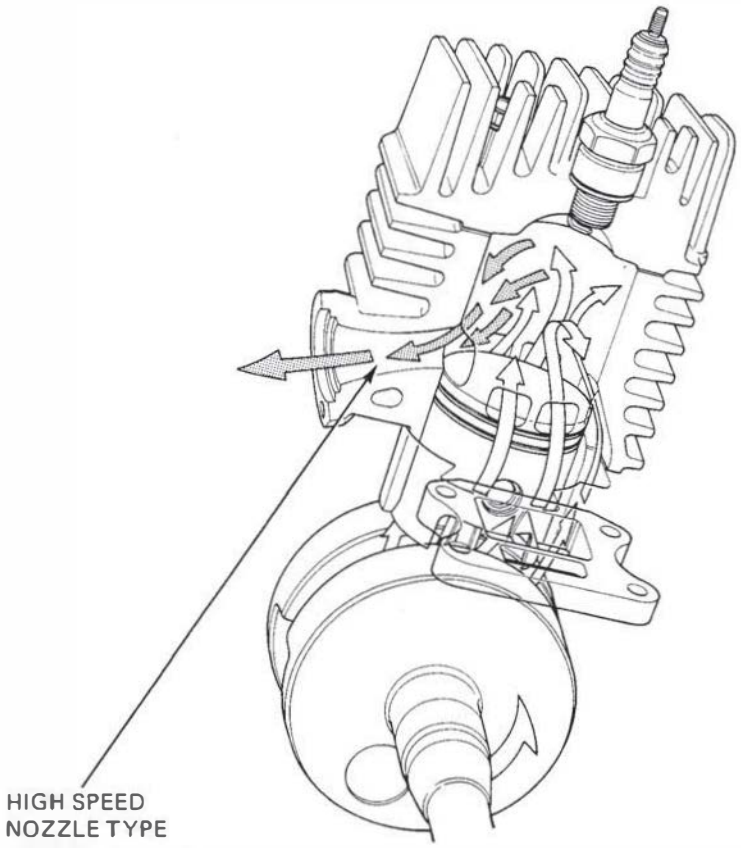


17

© HONDA MOTOR CO., LTD.

VENTURI EXHAUST PORT

The exhaust port on this engine has been designed with a slight venturi shape to create just enough back pressure to momentarily restrict the exit of the exhaust gases for a more complete combustion cycle. The exhaust quickly exits the cylinder after passing the venturi of the exhaust port. This is a way that emission standards are met by the NH80 engine that also help improve fuel mileage.

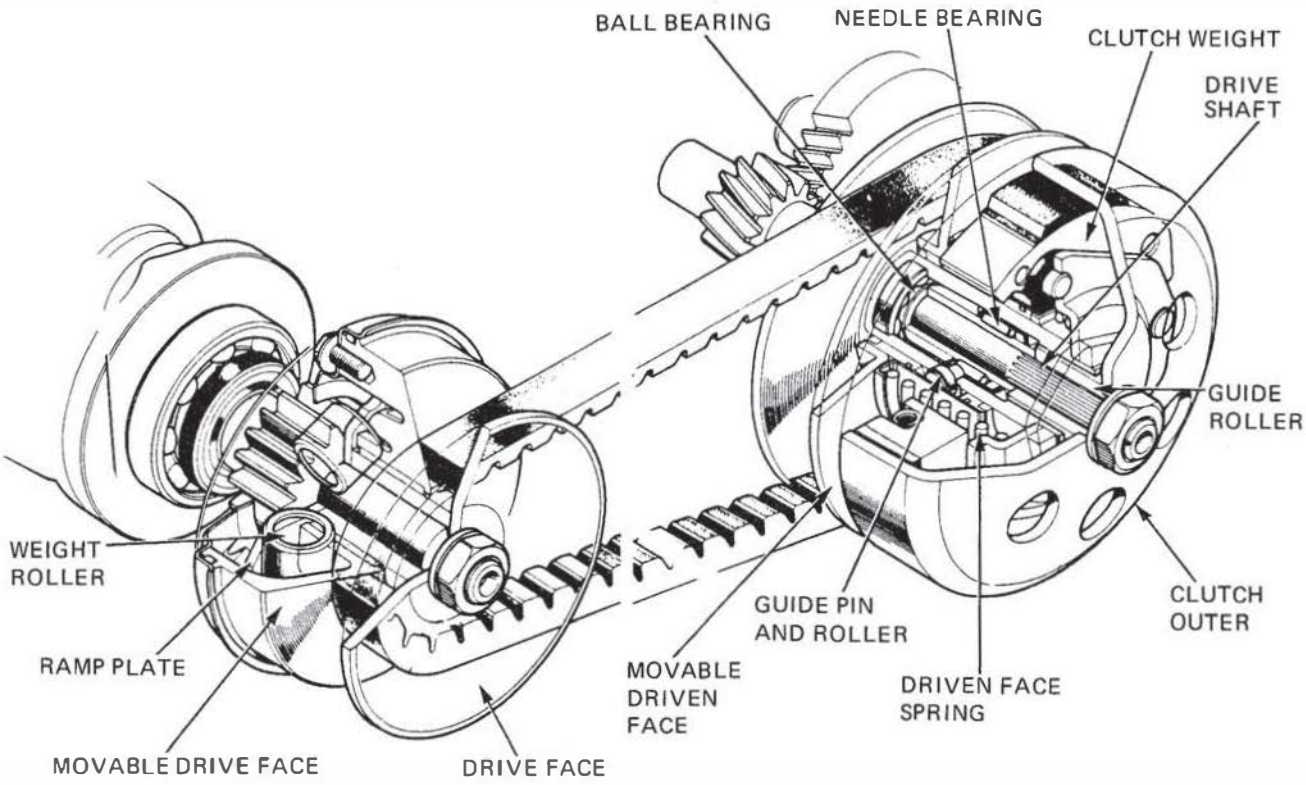


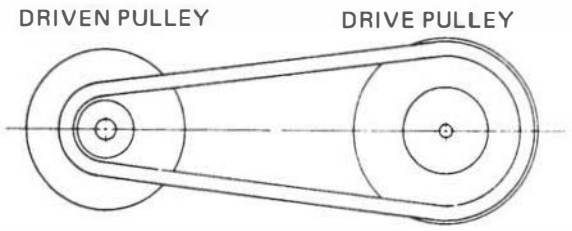
HIGH SPEED
NOZZLE TYPE
EXHAUST PORT

Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

AUTOMATIC TRANSMISSION

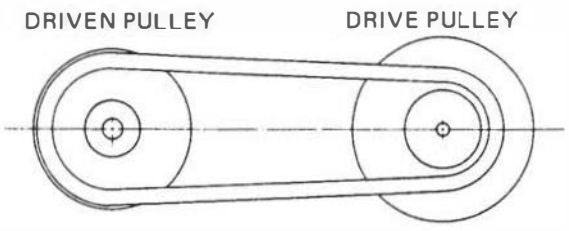
The automatic transmission provides various drive ratios between the engine and rear wheel according to the engine speed and load. It accomplishes this by two sets of pulleys; drive and driven, and by the use of a drive belt between the pulleys. The drive pulley is attached to the engine crankshaft. The driven pulley is attached to a shaft and also incorporates a centrifugal clutch. There is a final gear reduction between the driven pulley and rear wheel, providing an additional increase in torque.





When the engine is running at low speed, the unit can increase or multiply torque so that more torque is delivered than at high engine speed through a greater drive ratio.

REDUCTION RATIO: 2 : 1

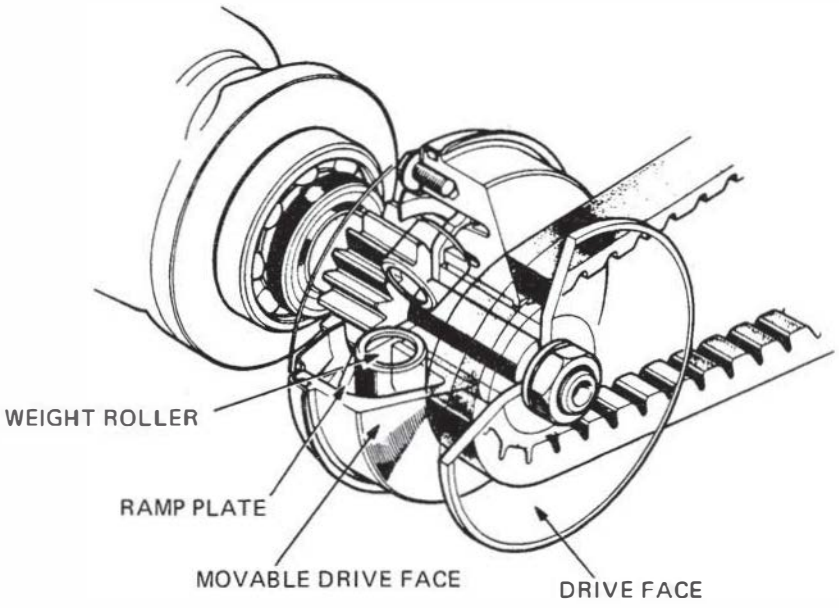


As the speed of the engine increases, or load on the rear wheel decreases, centrifugal force on the weight rollers throws the rollers radially outward. When the rollers are forced outward, they press-in the movable face of the drive pulley closer to the drive face which will result in a reduced drive ratio between the driven and drive pulleys.

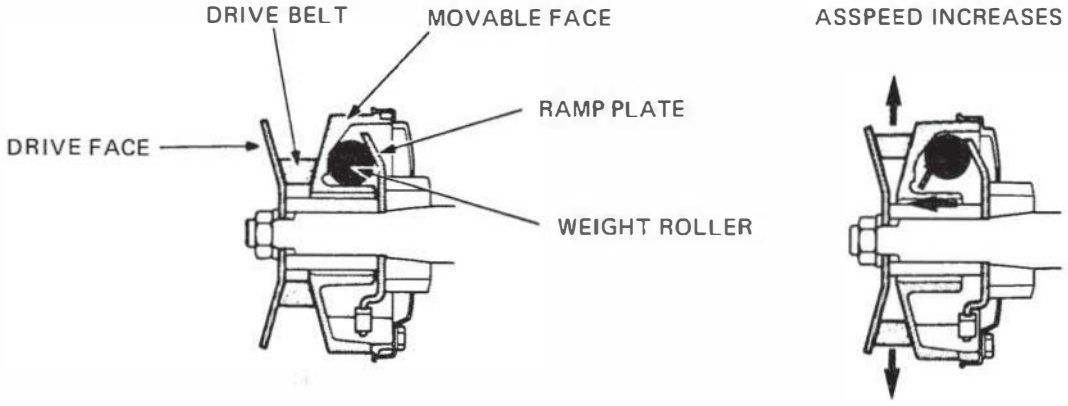
REDUCTION RATIO: 1 : 1

© HONDA MOTOR CO., LTD.

DRIVE PULLEY



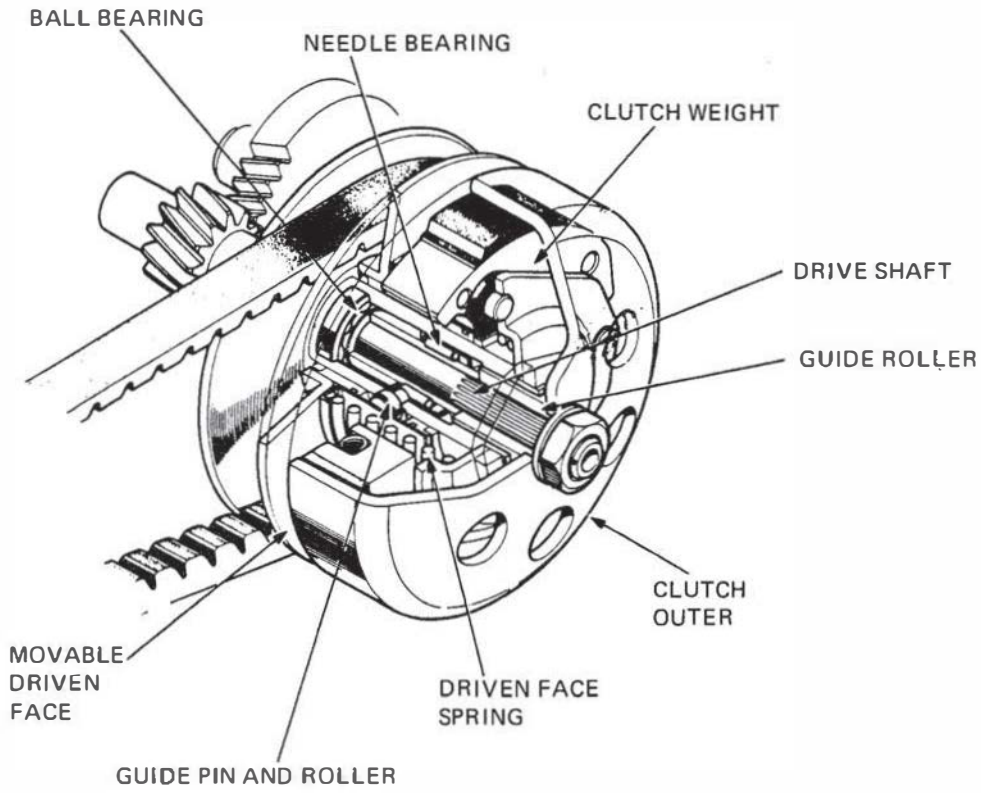
The drive pulley consists of a fixed face and a movable face. The movable face is capable of sliding axially on the boss of the fixed face. The ramp plate, which pushes in the weight rollers against the drive face, is attached to the boss of the drive face with a nut.



As the speed of the engine increases, centrifugal force on the weight rollers is also increased. This pushes the movable drive face inward. The unit then acts with a reduced drive ratio by allowing the drive belt to run on a pulley of greater diameter.

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

DRIVEN PULLEY



The driven pulley and clutch weights are attached over the drive shaft. The clutch outer is attached to the drive shaft with a nut. The force of the driven face spring is always exerted on the movable face to push it against the driven face. Therefore, when engine speed is increased, the driven pulley turns and the clutch connects automatically. The effective diameter of the drive pulley is increased. The movable face is forced outward by means of the belt until an equilibrium is reached between the torque tension of the belt and force of the spring. When this occurs, the drive ratio decreases and less torque is delivered to the final reduction.

© HONDA MOTOR CO., LTD.

18. TROUBLESHOOTING

ENGINE DOES NOT START OR IS HARD TO START

		Probable Cause
1. Check if fuel is getting to carburetor by loosening drain screw GETTING TO CARBURETOR	NOT GETTING TO CARBURETOR →	(1) No fuel in fuel tank (2) Clogged fuel tube up to carburetor, vacuum tube up to inlet pipe (3) Clogged float valve (4) Clogged fuel tank cap breather hole (5) Clogged fuel strainer
2. Try spark test SPARK JUMPS	WEAK OR NO SPARK →	(1) Faulty spark plug (2) Fouled spark plug (3) Faulty CDI unit (4) Faulty pulse generator (5) Broken or shorted high tension wire (6) Broken or shorted ignition coil (7) Faulty ignition switch
3. Test cylinder compression NORMAL COMPRESSION	LOW COMPRESSION →	(1) Stuck piston rings (2) Faulty or deteriorated reed valve (3) Worn cylinder and piston rings (4) Flaw in cylinder or cylinder head (5) Compression leak past crankcase (6) Blown cylinder head gasket
4. Start by following normal starting procedure ENGINE DOES NOT FIRE	ENGINE FIRES BUT SOON STOPS →	(1) Faulty control box (2) Air leaking past intake pipe (3) Improper ignition timing (4) Carbon blocking exhaust system
5. Remove spark plug DRY	WET PLUG →	(1) Carburetor flooded (2) Faulty control box (3) Throttle valve open excessively

18

© HONDA MOTOR CO., LTD.

ENGINE LACKS POWER

		Probable Cause
1. Lightly accelerate engine ENGINE SPEED INCREASES	ENGINE SPEED DOES NOT INCREASE SUFFICIENTLY →	(1) Clogged air cleaner (2) Restricted fuel flow (3) Clogged fuel tank cap breather hole (4) Clogged muffler
2. Check ignition timing CORRECT	INCORRECT →	(1) Faulty CDI unit (2) Faulty pulse generator
3. Test cylinder compression NORMAL	TOO LOW →	(1) Worn cylinder or piston rings (2) Blown cylinder head gasket (3) Flaws in cylinder or cylinder head (4) Faulty or deteriorated reed valve
	TOO HIGH →	(1) Carbon build-up in combustion chamber
4. Check carburetor for clogging NOT CLOGGED	CLOGGED →	(1) Carburetor not serviced frequently enough
5. Remove spark plug NOT FOULED OR DISCOLORED	FOULED OR DISCOLORED →	(1) Plug not serviced frequently enough (2) Use of plug with improper heat range
6. Check if engine overheats NOT OVERHEATED	OVERHEATED →	(1) Worn cylinder or piston (2) Fuel air mixture too lean (3) Use of improper grade of fuel (4) Excessive carbon build-up in combustion chamber (5) Ignition timing too advanced
7. Try rapid acceleration or run at high speed ENGINE DOES NOT KNOCK	ENGINE KNOCKS →	(1) Excessive carbon build-up in combustion chamber (2) Use of improper grade of fuel (3) Clutch slipping (4) Fuel air mixture too lean

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

POOR PERFORMANCE AT LOW AND IDLE SPEEDS

		Probable Cause
1. Check ignition timing	INCORRECT →	(1) Faulty CDI unit (2) Faulty pulse generator
CORRECT ↓		
2. Check carburetor air screw for proper adjustment	INCORRECT →	(1) Fuel air mixture too rich (Perform idle drop) (2) Fuel air mixture too lean (Perform idle drop)
CORRECT ↓		
3. Check if air is leaking past intake pipe	LEAKING →	(1) Loose carburetor (2) Deteriorated inlet pipe gasket (3) Deteriorated insulator O-ring
NOT LEAKING ↓		
4. Try spark test	WEAK OR INTERMITTENT SPARK →	(1) Faulty, carbon or wet fouled spark plug (2) Faulty CDI unit (3) Faulty pulse generator (4) Faulty ignition coil (5) Broken or shorted high tension wire (6) Faulty ignition switch
GOOD SPARK		

POOR PERFORMANCE AT HIGH SPEED

1. Check ignition timing	INCORRECT →	(1) Faulty CDI unit (2) Faulty pulse generator
CORRECT ↓		
2. Disconnect fuel tube at fuel valve	FUEL FLOW RESTRICTED →	(1) No fuel in fuel tank (2) Clogged fuel tube or fuel filter (3) Clogged fuel tank cap breather hole
FUEL FLOWS FREELY ↓		
3. Remove carburetor and check for a clogged jet	CLOGGED →	(1) Clean
NOT CLOGGED		

© HONDA MOTOR CO., LTD.

POOR HANDLING

CLUTCH AND DRIVE/DRIVEN PULLEYS

	Probable cause
1. If engine fires but motorcycle does not start	(1) Worn or slipping drive belt (2) Broken ramp plate (3) Broken drive face spring (4) Separated clutch lining (5) Damaged driven pulley shaft splines (6) Faulty transmission (7) Seized transmission
2. If motorcycle creeps or engine starts but soon stops	(1) Broken shoe spring (2) Stuck clutch outer weight (3) Seized pivot
3. If engine lacks power at start of a grade	(1) Worn or slipping drive belt (2) Worn weight roller (3) Seized drive pulley bearing (4) Weak driven face spring (5) Worn or seized driven pulley bearing
4. If engine lacks power at high speed	(1) Worn or slipping drive belt (2) Worn weight roller (3) Worn driven pulley bearing
5. If there is abnormal noise or smell	(1) Oily or greasy substances on drive belt/pulley (2) Worn drive belt (3) Weak driven face spring (4) Worn or seized driven pulley bearing

LOSS OF CONTROL---------- Check tire pressure

	Probable Cause
1. If steering is heavy	(1) Steering head adjuster too tight (2) Damaged steering cones or steel balls
2. If either wheel is wobbling	(1) Excessive wheel bearing play (2) Bent rim (3) Loose axle nut
3. If the motorcycle pulls to one side	(1) Misaligned front and rear wheels (2) Bent front fork

POOR FRONT/REAR SUSPENSION PERFORMANCE------Check tire pressure

	Probable Cause
1. If suspension is too soft	(1) Weak shock spring (2) Excessive load (3) Leaky damper
2. If suspension is too hard	(1) Bent fork or shock rod
3. If suspension is noisy	(1) Slider binding (2) Damaged shock stopper rubber

Date of Issue: May, 1983
© HONDA MOTOR CO., LTD.

POOR BRAKE PERFORMANCE------ Check brake adjustment

		Probable Cause
1. If wear indicator arrow aligns with index mark on brake panel	→	(1) Worn brake shoes (2) Worn brake cam (3) Worn cam contacting face of shoe (4) Worn brake drum
2. If either brake is squealing	→	(1) Worn brake shoes (2) Foreign matter on brake lining (3) Rough shoe contact face of brake drum
3. If brake performance is poor	→	(1) Faulty or elongated brake cable (2) Brake shoes partially contacting brake drum (3) Mud or water in brake drum (4) Brake linings fouled with grease or oil

OIL INDICATOR

INDICATOR LAMP DOES NOT LIGHT WHEN IGNITION SWITCH IS TURNED ON

		Probable Cause
1. Check battery circuit by operating turn signals SIGNALS OPERATING CORRECTLY (60–120 flashings/min)	SIGNALS DIM, REMAINED ON OR NOT OPERATED →	(1) Blown fuse (2) Weak or dead battery (3) Faulty ignition switch (4) Disconnected wire connector (5) Broken wire harness
2. Remove lamp and check for broken filament LAMP LIT	LAMP NOT LIT →	(1) Blown bulb
3. Check for loose, disconnected or improperly connected terminal CORRECT	INCORRECT →	(1) Loose or disconnected terminal (2) Broken wire harness (3) Incorrect wire connection
4. Remove oil level sensor and check operation: Float up: Lamp off Float down: Lamp on CORRECT	INCORRECT →	(1) Stuck float (2) Broken or shorted balancing coils

INDICATOR LAMP REMAINS ON WITH SUFFICIENT OIL IN OIL TANK (IGNITION SWITCH ON)

		Probable Cause
1. Check for loose, disconnected or improperly connected terminals CORRECT	INCORRECT →	(1) Loose or disconnected terminal (2) Broken wire harness (3) Incorrect wire connection
2. Remove oil level sensor and check operation: Float up: Lamp off Float down: Lamp on	INCORRECT →	(1) Jammed or stuck float (2) Broken or shorted indicator sensor
CORRECT		(1) Deformed oil tank (2) Foreign matter in tank

©HONDA MOTOR CO., LTD.

FUEL GAUGE

POINTER DOES NOT REGISTER CORRECTLY (IGNITION SWITCH ON)

		Probable Cause
1. Check battery circuit by operating turn signals	SIGNALS DIM, REMAINED ON OR NOT OPERATED AT ALL →	(1) Blown fuse (2) Weak or dead battery (3) Faulty ignition switch (4) Disconnected terminal (5) Broken wire harness
SIGNALS OPERATED PROPERLY ↓		
2. Remove fuel level sensor and check for operation by moving float Float up: Pointer at FULL Float down: Pointer at EMPTY	POINTER MOVES →	(1) Faulty float
POINTER DOES NOT MOVE ↓		
3. Short and open tank unit terminals on wire harness side	POINTER MOVES →	(1) Broken or shorted balancing coil
POINTER DOES NOT MOVE ↓		
4. Check for loose, disconnected or incorrectly connected terminals	INCORRECT →	(1) Disconnected terminal (2) Incorrectly connected terminals
CORRECT →		(1) Shorted or broken balancing coil/lead

POINTER FLUCTUATES OR SWINGS VIOLENTLY (IGNITION SWITCH ON)

		Probable Cause
1. Check battery circuit by operating turn signals	SIGNALS DIM, REMAINED ON OR NOT OPERATED AT ALL →	(1) Blown fuse (2) Weak or dead battery (3) Broken or shorted ignition switch (4) Loose or disconnected terminal (5) Broken wire harness
SIGNALS OPERATED PROPERLY ↓		
2. Remove tank unit and check for operation by moving float	POINTER DOES NOT MOVE →	(1) Loose or poor connection in fuel level sensor
POINTER MOVES ↓		
3. Move float up and down rapidly (up-and-down stroke/sec)	POINTER DOES NOT MOVE →	(1) Lack of damper oil in meter
POINTER MOVES ↓		
4. Check each connector	INCORRECT →	(1) Loose or disconnected terminal
CORRECT →		(1) Shorted or broken balancing coil/lead

Date of Issue: May, 1983
©HONDA MOTOR CO., LTD.

STARTER MOTOR

STARTER MOTOR DOES NOT ROTATE

		Probable Cause
1. Check operation of brake light by operating brakes	DID NOT GO ON →	(1) Blown fuse (2) Weak or dead battery (3) Faulty stop light switch (4) Disconnected terminal (5) Broken or shorted ignition switch
WENT ON ↓		
2. Check battery circuit by operating turn signals	SIGNALS DIM, REMAINED ON OR NOT OPERATED AT ALL →	(1) Dead battery
SIGNALS OPERATED PROPERLY (60–120 flashings/min) ↓		
3. Check starter relay for operation by depressing starter switch	ABNORMAL →	(1) Poorly contacted starter switch (2) Broken or shorted starter relay (3) Loose connector or terminal
NORMAL ↓		
4. Test starter by connecting it to battery	NOT ROTATED →	(1) Worn brushes (2) Broken or shorted rotor windings (3) Broken starter motor sub wire (4) Loose terminal
↓		
ROTATED →		(1) Broken wire harness

STARTER MOTOR ROTATES BUT SLUGGISHLY OR FAILS TO CRANK ENGINE

		Probable Cause
1. Check battery circuit by operating turn signals	SIGNALS DIM, REMAINED ON OR NOT OPERATED AT ALL →	(1) Dead battery
SIGNALS OPERATED PROPERLY ↓		
2. Connect starter motor sub wires across battery terminals	TURNED PROPERLY →	(1) Loose connector/terminal (2) Poorly contacted starter relay
TURNED BUT SLOWLY (SPEED NOT CHANGED) ↓		
3. Operate kickstarter	HEAVY →	(1) Seized engine
↓		
LIGHT →		(1) Broken or shorted starter motor windings

STARTER WON'T STOP ROTATING

		Probable Cause
1. Turn ignition switch OFF	STOPPED →	(1) Pinion stuck out
↓		
NOT STOPPED →		(1) Starter relay shorted or stuck closed

© HONDA MOTOR CO., LTD.

SERVICE TOOL NEWS

HONDA

NH80 #1
REVISED: MAY 1985

NH80 — 1983 AND AFTER
REQUIRED SPECIAL TOOLS

(This STN supersedes NH80 #1, dated November, 1983)

The tools listed below are necessary to service and maintain this model. However, these tools should already be in your inventory as they are necessary for servicing one or more existing models. Any additional or replacement tools that you may need can be ordered using normal ordering procedures. You should have these special tools, or their approved equivalents, in your dealership as outlined in Service Tool News General #21, "Minimum Tool and Equipment Requirements." New special tools, as they are developed, will be shipped to you automatically.

ENGINE TOOLS

INSPECTION/ADJUSTMENT

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
1230382	ST-AH-260-MC7	Hand Vacuum Pump with Gauge	Fuel valve inspection. Pump A937X-041-XXXXX may also be used
0238923	07401-0010000	Float Level Gauge	Float level inspection.

CLUTCH

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
1049154	07725-0030000	Universal Holder	Hold flywheel to assist drive clutch nut removal and installation.
1072974	07916-1870001	Lock Nut Wrench	Remove and install the driven pulley nut.
1505809	07960-KJ90000	Clutch Spring Compressor	Compresses the driven pulley to disassemble and assemble clutch unit.

ALTERNATOR

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
1049154	07725-0030000	Universal Holder	Hold flywheel, assist flywheel nut removal and torquing.
0060756	07933-0010000	Flywheel Puller	Flywheel removal.

TRANSMISSION/CRANKSHAFT

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
0753509	07746-0010100	Attachment, 32 x 35 mm	To install transmission cover bearing #6202 and left crankcase bearing #6201.
0753491	07746-0010200	Attachment, 37 x 40 mm	To install transmission cover and left crankcase bearings #6203.
0959817	07746-0010300	Attachment, 42 x 47 mm	To install crankshaft bearings #6004.
0959874	07746-0040200	Pilot, 12 mm	Use with attachment 07746-0010100 to install left crankcase bearing #6201.
0959882	07746-0040300	Pilot, 15 mm	Use with attachment 07746-0010100 to install transmission cover bearing #6202.
0959890	07746-0040400	Pilot, 17 mm	Use with attachment 07746-0010200 to install transmission cover and left crankcase bearing #6203.
0959916	07746-0040600	Pilot, 25 mm	Use with attachment 07746-0010300 to install crankshaft bearing #6004.
0933242	07749-0010000	Driver	Use with all attachments and pilots.

(over)

MST 5523-8819 (8505)

ROUTING
Copy 1: ☐ GENERAL MANAGER ☐ PARTS MANAGER ☐ TOOL CATALOG BINDER
Copy 2: ☐ SERVICE MANAGER ☐ SERVICE TECHNICIANS ☐ SERVICE MANUAL BINDER

© AMERICAN HONDA MOTOR CO., INC. - ALL RIGHTS RESERVED

ENGINE TOOLS (CONTINUED)

TRANSMISSION/CRANKSHAFT (continued)

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
1490978	07935-KG80000	Case Puller	• Kick starter driven gear removal. Use with special bolts. • Crankcase separation.
1503267	07965-GC70100	Assembly Collar	Use together for assembling the crankshaft and crankcases.
1503275	07965-1480200	Assembly Bolt	

CHASSIS TOOLS

WHEEL/BRAKE

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
0753509	07746-0010100	Attachment, 32 x 35 mm	Front wheel bearings #6201 installation. Use with 07746-0040200 and 07749-0010000.
0959874	07746-0040200	Pilot, 12 mm	Use with 07746-0010100 and 07749-0010000 to install front wheel bearings.
0933242	07749-0010000	Driver	Use with attachment and pilot.

SUSPENSION/FRAME

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
0997882	M9361-412-099788	Adjustable Pin Spanner Wrench	Steering stem adjuster nut removal/adjustment
0753491	07746-0010200	Attachment, 37 x 40 mm	Top steering head race installation. Use with Pilot, 25 mm 07746-0040600 and 07749-0010000.
0959817	07746-0010300	Attachment, 42 x 47 mm	Bottom steering head race installation. Use with Pilot, 30 mm 07746-0040700 and 07749-0010000.
0959916	07746-0040600	Pilot, 25 mm	Use with 07746-0010200 to install top steering head race.
1021252	07746-0040700	Pilot, 30 mm	Use with 07746-0010300 to install bottom steering head race.
0933242	07749-0010000	Driver	Use with attachments and pilots.
0338699	07947-3550000	Fork Seal Driver	Steering stem bottom race installation. Use with old bearing race turned over for additional height.

OPTIONAL TOOLS

The following tools are available from American Honda, but are not required tools for this model.

H/C	TOOL NUMBER	DESCRIPTION	APPLICABILITY
0688168	07959-3290001	Rear Shock Absorber Compressor	Rear shock absorber dis/assembly
1277649	07967-GA70001	Rear Shock Absorber Compressor Attachment	
0324210	07967-1180100	Spring Attachments	

© American Honda Motor Co., Inc. 1985 - All Rights Reserved