

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 standard set by U.S. Environmental Protection Agency and California Air Resources Board. 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 motorcycle, while sections 4 through 20 describe parts of the motorcycle, 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 don't know the source of the trouble, go to section 21 TROUBLESHOOTING.

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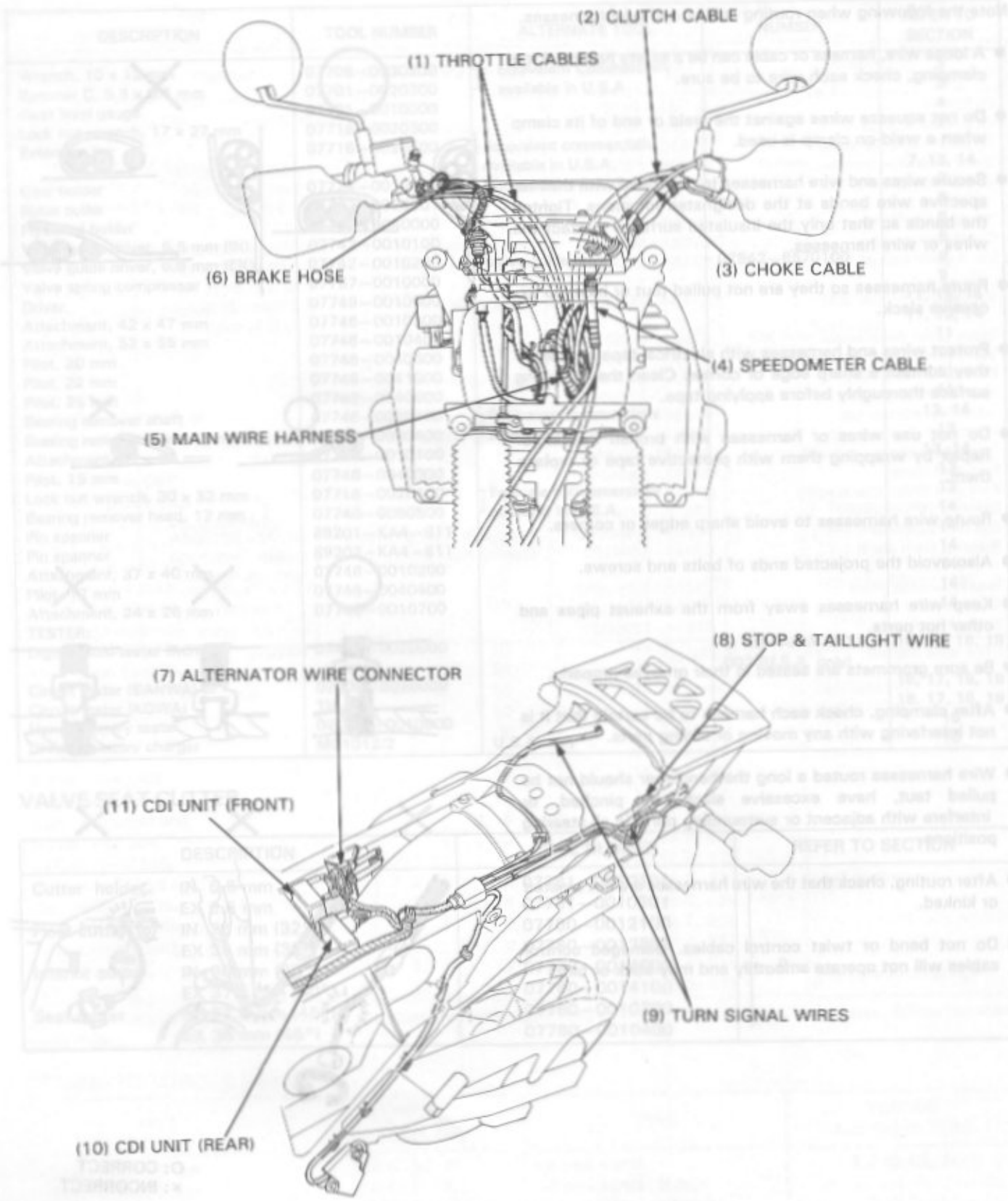


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GENERAL INFORMATION

CABLE AND HARNESS ROUTING



ENGINE OIL LEVEL CHECK

Support the motorcycle upright on level ground. Start the engine and let it idle for a few minutes.

Stop the engine, remove the oil filler cap/dipstick and wipe it clean.

Check the oil level with the oil filler cap/dipstick by inserting it without screwing it in.

NOTE

- Do not screw the cap in when making this check.

If the oil level is below the lower level mark on the dipstick, fill to the upper level mark with the recommended oil (see below).



ENGINE OIL CHANGE

NOTE

- Change the engine oil with the engine warm and the motorcycle on its side stand to assure complete and rapid draining.

Remove the oil filler cap/dipstick and drain bolt. With the engine stop switch OFF, start the starter motor for a few seconds to drain any oil which may be left in the engine.

NOTE

- Do not operate the motor more than a few seconds.

After the oil has drained, check that the drain bolt sealing washer is in good condition, and install the bolt.

TORQUE: 35 N·m (3.5 kg·m, 25 ft·lb)

Fill the crankcase with the correct quantity of the recommended oil.

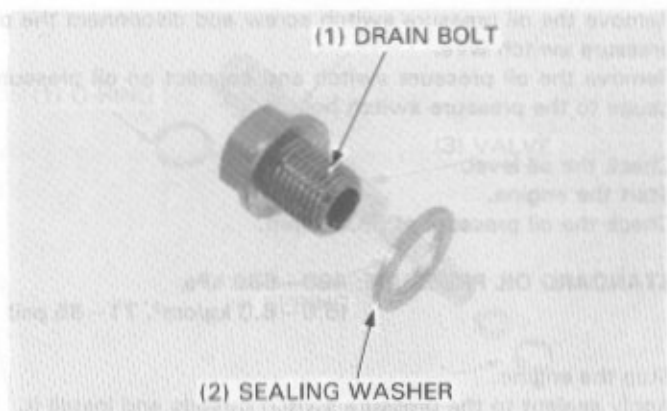
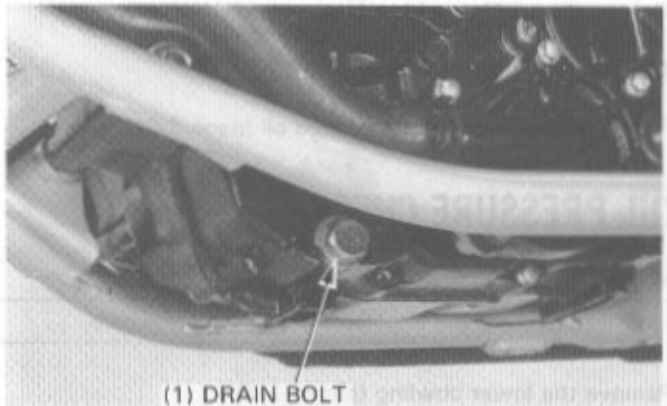
OIL CAPACITY:

- 2.8 lit (2.96 US qt, 2.46 Imp qt) after disassembly
- 2.4 lit (2.54 US qt, 2.11 Imp qt) at oil filter and oil change
- 2.2 lit (2.32 US qt, 1.94 Imp qt) after draining

RECOMMENDED OIL: Honda 4-stroke oil or equivalent
API service classification: SE or SF
VISCOSITY: SAE 20W-50/10W-40

Install the oil filler cap/dipstick. Start the engine and let it idle for a few minutes.

Stop the engine and wait a few minutes, then check that the oil level is at the upper level mark with the motorcycle upright. Check that there are no oil leaks.



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.

R: Replace C: Clean L: Lubricate

ITEM	FREQUENCY	NOTE	ODOMETER READING (NOTE 1)							Refer to page		
			x 1,000 mi	0.6	4	8	12	16	20		24	
			x 100 km	10	64	128	192	256	320		384	
EMISSION RELATED ITEMS	* FUEL LINE					I			I		I	3-4
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NON-EMISSION RELATED ITEMS	DRIVE CHAIN	NOTE 5	EVERY 600 mi (1,000 km) I, L							3-11		
	DRIVE CHAIN SLIDER				I	I	I	I	I	I	I	3-12
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	* SPARK ARRESTER	NOTE 6				C	C	C	C	C	C	3-16
	* NUTS, BOLTS, FASTENERS	NOTE 5				I		I		I		3-17
	** WHEELS/TIRES	NOTE 5				I	I	I	I	I	I	3-17
** STEERING HEAD BEARINGS					I		I		I		3-18	

* Should be serviced by an authorized Honda 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 dealer.

NOTES: 1. At higher odometer readings, repeat at the frequency interval established here.

2. Service more frequently when riding in unusually wet or dusty areas.

3. Service more frequently when riding in rain or at full throttle.

4. California type only.

5. Service more frequently when riding OFF-ROAD.

6. U.S.A. only.

7. Replace every 2 years, or at indicated odometer interval, whichever comes first. Replacement requires mechanical skill.

BRAKE FLUID

Check the front brake fluid reservoir level.
If the level nears the lower level mark, remove the cover and diaphragm. Fill the reservoir with DOT 3 or 4 brake fluid only.

Check the entire system for leaks, if the level is low.

CAUTION

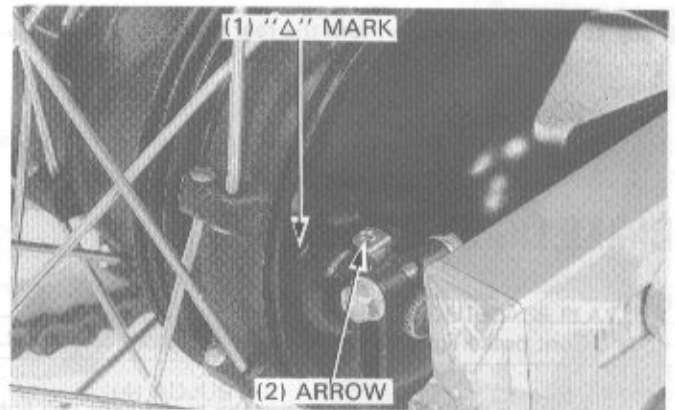
- Be careful not to let dust or water into the system when filling the reservoir.
- Avoid spilling brake fluid on painted surfaces or instrument lenses, as severe damage can result.
- Do not remove the cover until the handlebar has been turned so that the reservoir is level.
- Do not mix different types of fluid, as they are not compatible with each other.

Refer to section 15 for brake bleeding procedures.

BRAKE SHOE/PAD WEAR

BRAKE SHOE INSPECTION

Replace the brake shoes if the arrow on the brake indicator plate aligns with the reference mark "Δ" on full application of the rear brake pedal.



BRAKE PAD WEAR

Inspect the pads visually from the direction indicated by the arrow mark during all regular service intervals to determine pad wear.

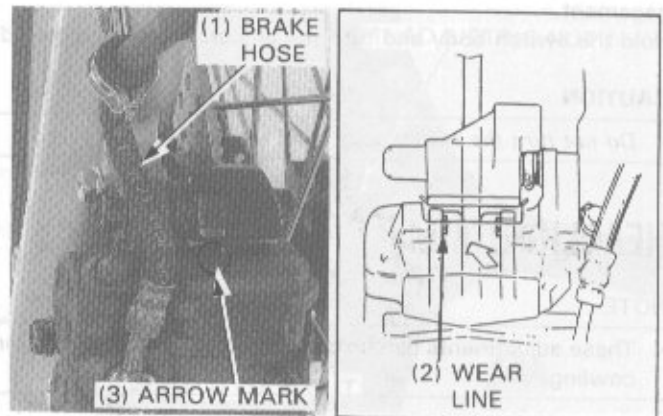
If either pad wears to the wear lines, both pads must be replaced.

CAUTION

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

Make sure there are no fluid leaks.

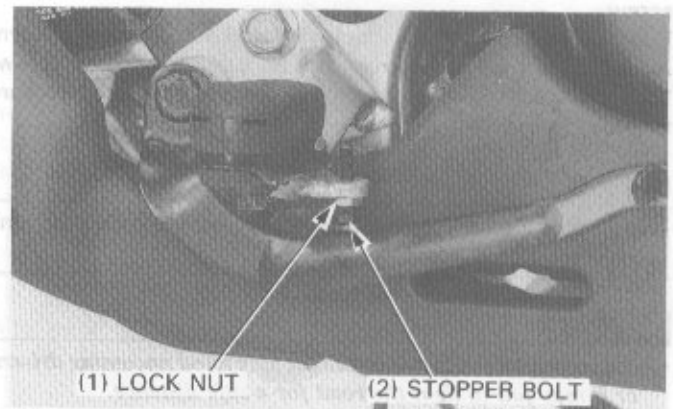
Check the brake hose and fittings for deterioration or cracks.



BRAKE SYSTEM

BRAKE PEDAL HEIGHT

To adjust:
Loosen the lock nut and adjust the pedal height by turning the stopper bolt. Tighten the lock nut.
Adjust the brake pedal free play (page 3-14).



FUEL SYSTEM

FUEL VALVE

INSPECTION

Install the vacuum pump to the vacuum tube of the fuel valve.

Apply a vacuum to the diaphragm with the vacuum pump and be sure the gasoline flows smoothly.

The fuel valve is operating normally if fuel flows out of the fuel tube when vacuum is applied and if fuel stops flowing out when the vacuum pump is disconnected.

If the fuel valve does not operate normally;

- Inspect the fuel valve for clogging and clean the valve.
- Replace the diaphragm if fuel flows out without applying a vacuum.

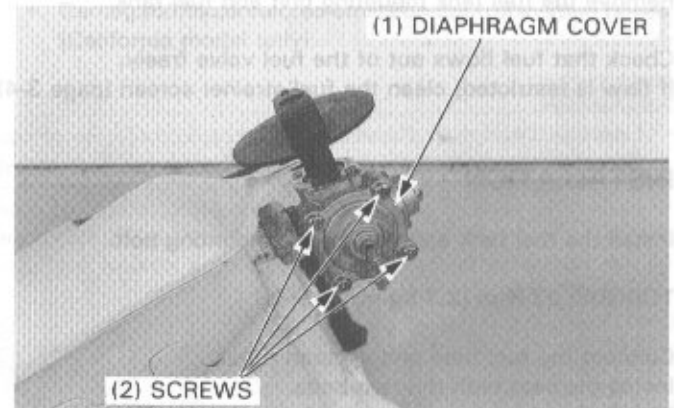
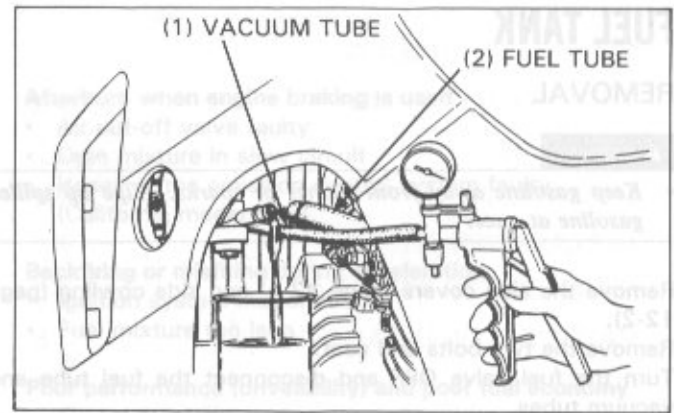
NOTE

- Place a clean fuel container under the fuel tube.

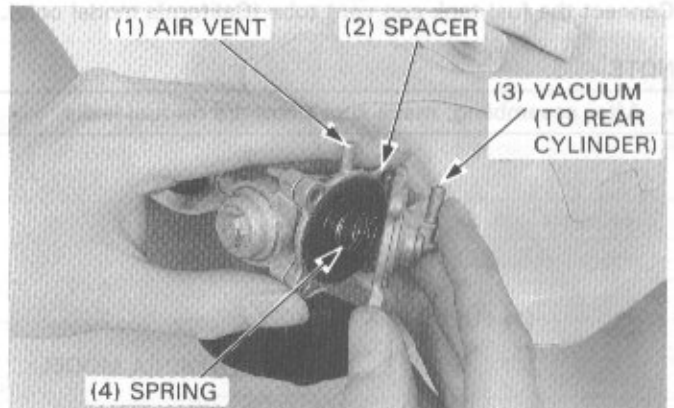
DISASSEMBLY

Remove the fuel tank (page 4-3).

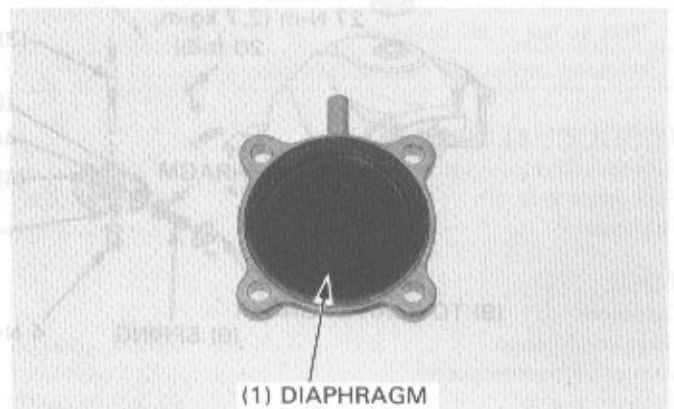
Remove the diaphragm cover with the four screws.



Remove the spring and spacer.
Check the spring for damage.



Check the diaphragm for pin holes or other damage.
Replace if necessary.



FUEL SYSTEM

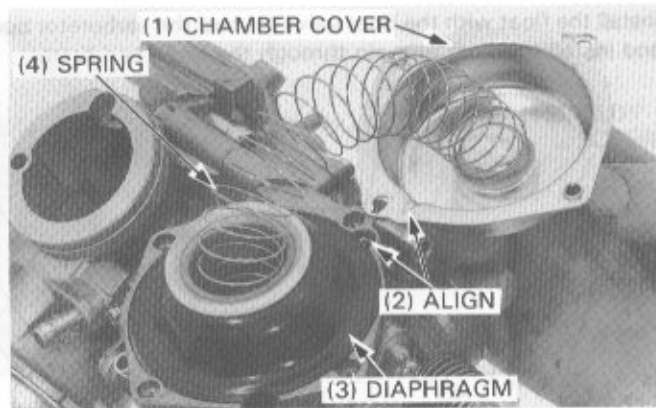
Install the vacuum chamber with the tab of the diaphragm aligned with the groove of the carburetor and with the vacuum piston held up to almost full open so that the diaphragm is not pinched by the chamber cover.

Install the chamber cover with the spring, aligning its cavity with the hole in the carburetor, and secure with at least two screws on diagonal before releasing the vacuum piston.

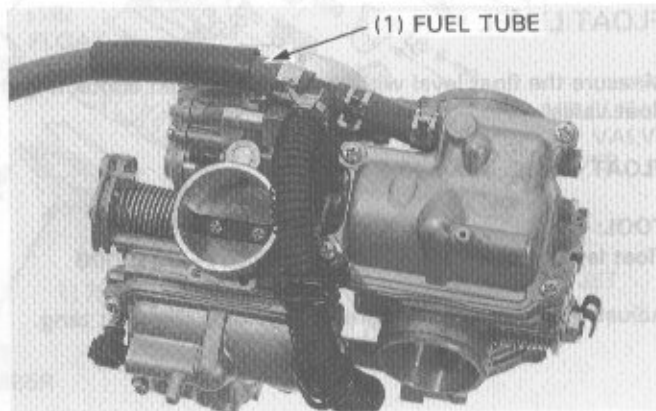
Install the remaining screws.

NOTE

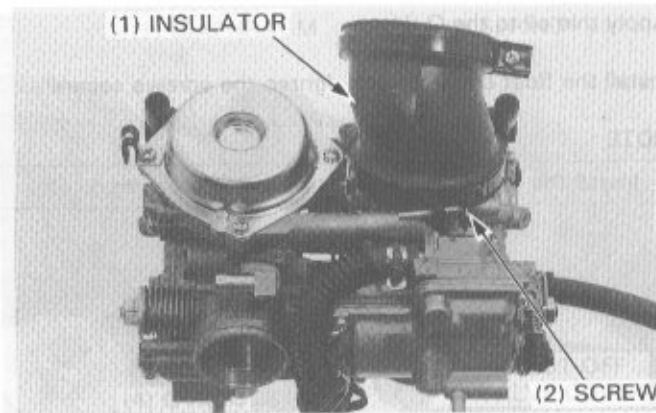
- Do not pinch the diaphragm with the chamber cover.



Install the fuel tube to the carburetors as shown.



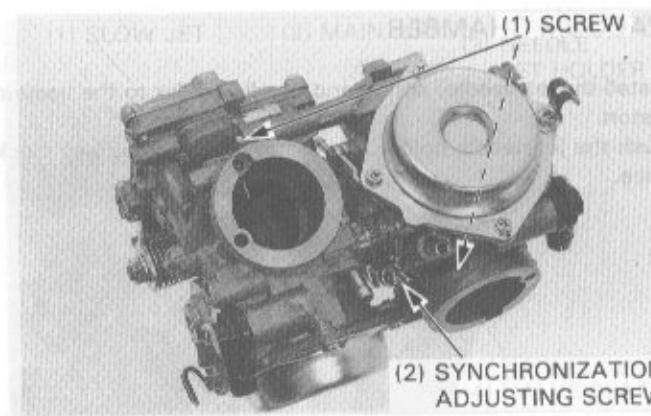
Install the insulator to the carburetor and tighten the screw securely.



CARBURETOR SEPARATION/ COMBINATION

SEPARATION

Loosen the synchronization adjusting screw.
Separate the carburetors by removing two attaching screws.

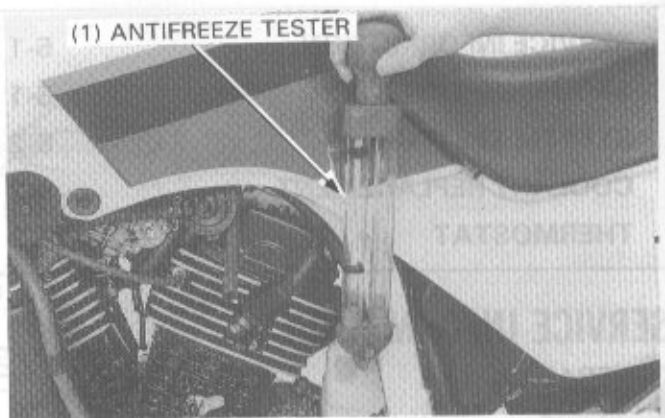


COOLING SYSTEM

SYSTEM TESTING

COOLANT MIXTURE

Test the coolant mixture with an antifreeze tester. For maximum corrosion protection, a 50/50% solution of ethylene glycol and distilled water is recommended.



RADIATOR CAP INSPECTION

Remove the right side cowling (page 12-2).
Remove the radiator cap.

▲ WARNING

- *Be sure the engine is cool before removing the cap.*

Pressure test the radiator cap. Replace the radiator cap if it does not hold pressure, or if its relief pressure is too high or too low. It must hold the specified pressure for at least six seconds.

NOTE

- Before installing the cap on the tester, wet the sealing surfaces with water.

RADIATOR CAP RELIEF PRESSURE:

88–127 kPa (0.9–1.3 kg/cm², 13–18 psi)



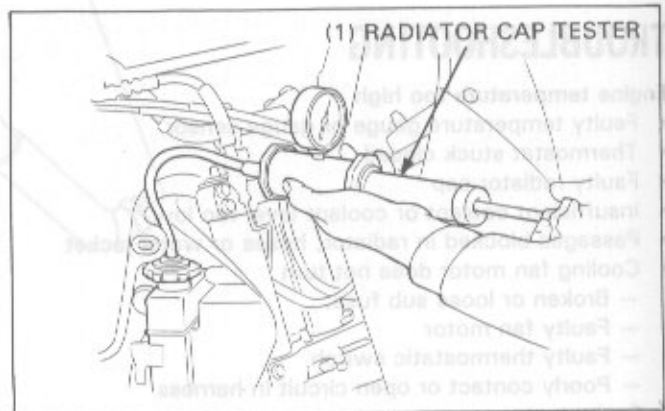
SYSTEM PRESSURE TEST

Remove the right side cowling (page 12-2) and radiator cap.
Pressurize the radiator, engine and hoses, and check for leaks.

CAUTION

- *Excessive pressure can damage the radiator. Do not exceed 125 kPa (1.25 kg/cm², 18 psi)*

Repair or replace components if the system will not hold the specified pressure for at least six seconds.



6. ENGINE REMOVAL/INSTALLATION

SERVICE INFORMATION	6-1	ENGINE INSTALLATION	6-2
ENGINE REMOVAL	6-2		

SERVICE INFORMATION

GENERAL

CAUTION

- Do not jack up the motorcycle by putting the jack under the oil filter.

- During removal and installation, support the frame with suitable stay.
- Parts requiring engine removal for servicing:

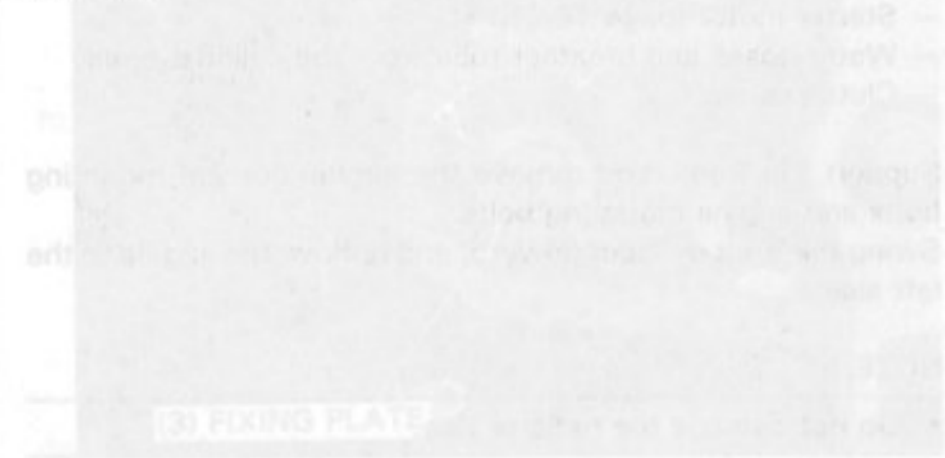
Oil pump mounting bolts	Section 2
Cylinder head	Section 9
Cylinder/Piston	Section 10
Crankshaft/Transmission	Section 11

SPECIFICATIONS

Engine dry weight	59.5 kg (131.17 lb)
Oil capacity	2.2 lit (2.32 US qt, 1.94 Imp qt) after draining
	2.8 lit (2.96 US qt, 2.46 Imp qt) after disassembly

TORQUE VALUES

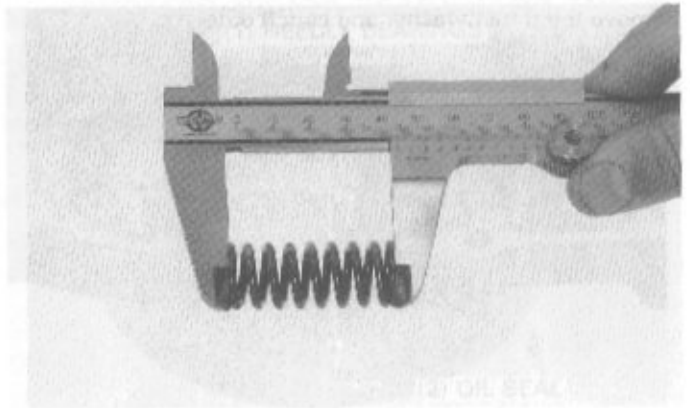
Swingarm/engine pivot nut	110 N·m (11.0 kg-m, 80 ft-lb)
Engine mounting nut (upper/lower)	55 N·m (5.5 kg-m, 40 ft-lb)
Engine bracket nut	27 N·m (2.7 kg-m, 20 ft-lb)
Gearshift pedal bolt	10 N·m (1.0 kg-m, 7 ft-lb)



CLUTCH/GEARSHIFT LINKAGE

Measure the spring free length.

SERVICE LIMIT: 37.4 mm (1.47 in)



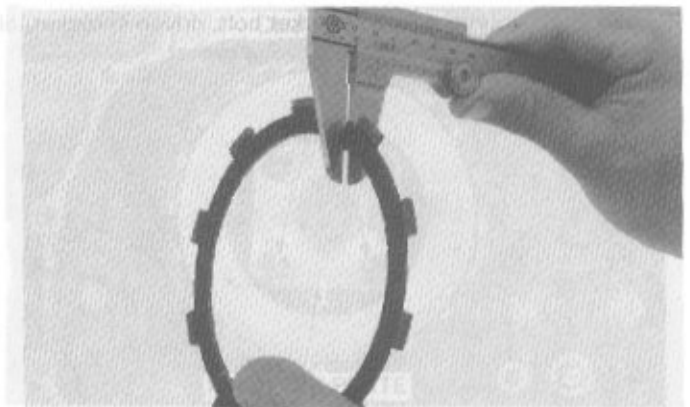
Replace the clutch discs if they show signs of scoring or discoloration.

Measure the thickness of the disc A and B.

SERVICE LIMIT: 2.60 mm (0.102 in)

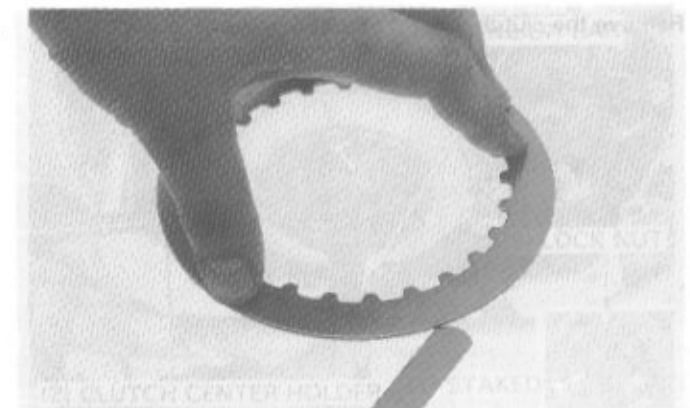
NOTE

- Replace the discs and plates as a set if any one is beyond the service limit.



Check the plate warpage on the surface of the plate using a thickness gauge.

SERVICE LIMIT: 0.30 mm (0.012 in)



Not available in U.S.A.

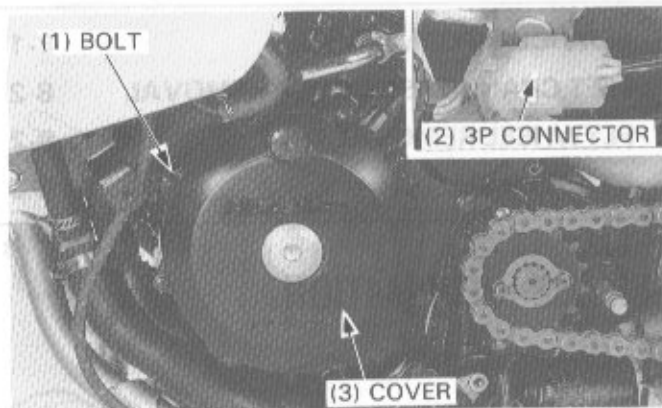
Check the clutch center for nicks or indentations made by the clutch plates.



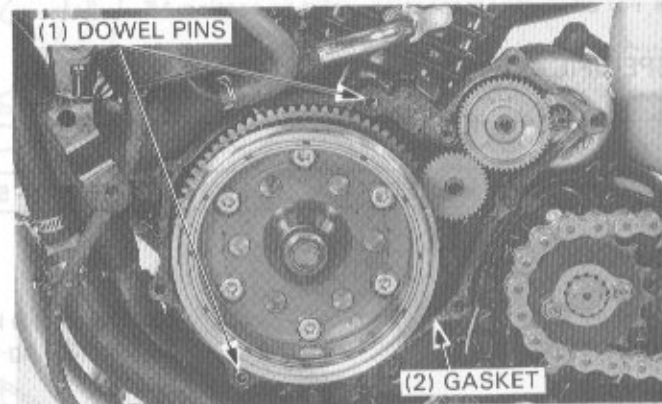
LEFT CRANKCASE COVER REMOVAL

Remove the lower cowling (page 12-3).
Remove the seat and disconnect the alternator 3P connector.

Remove the drive sprocket cover (page 5-8).
Remove the left crankcase cover bolts and left crankcase cover.

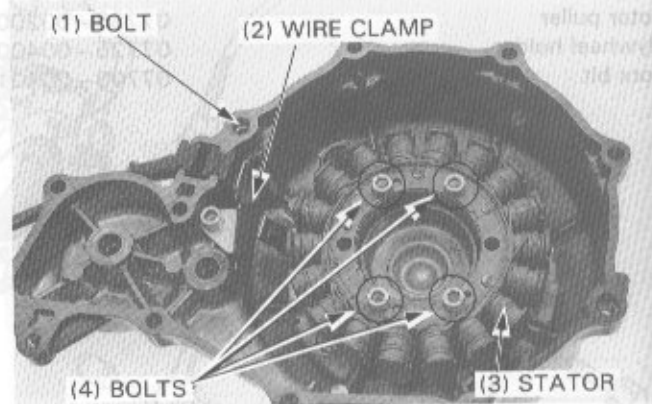


Remove the dowel pins and gasket.



STATOR REMOVAL

Remove the bolt attaching the wire clamp.
Remove the stator bolts and stator.



FLYWHEEL REMOVAL

Hold the flywheel with the flywheel holder.
Remove the left-hand thread flywheel bolt and washer.

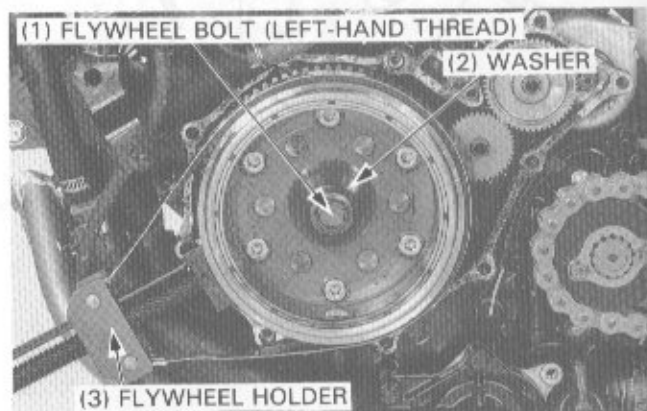
TOOL:

Flywheel holder

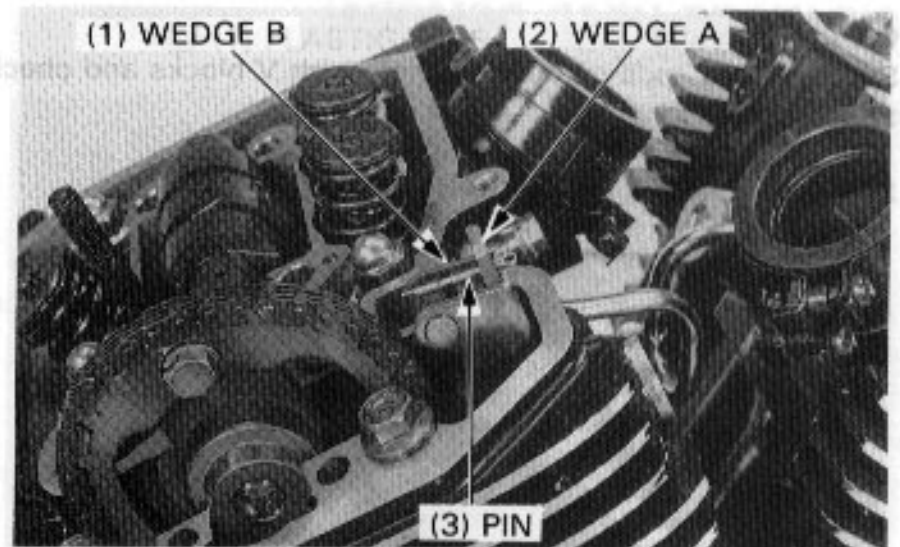
07725-0040000
or equivalent commercially
available in U.S.A.

NOTE

- The flywheel bolt has left-hand threads.



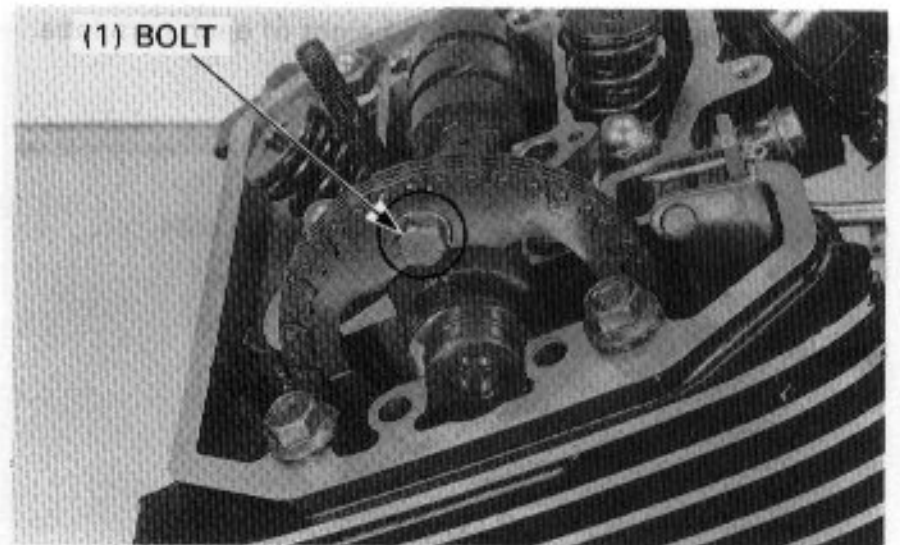
Pull the cam chain tensioner wedge A straight up while holding wedge B down.
Secure the wedge A with a 2 mm pin as shown.



Remove the cam sprocket bolt, rotate the crankshaft counterclockwise one turn (360°) and remove the other cam sprocket bolt.

NOTE

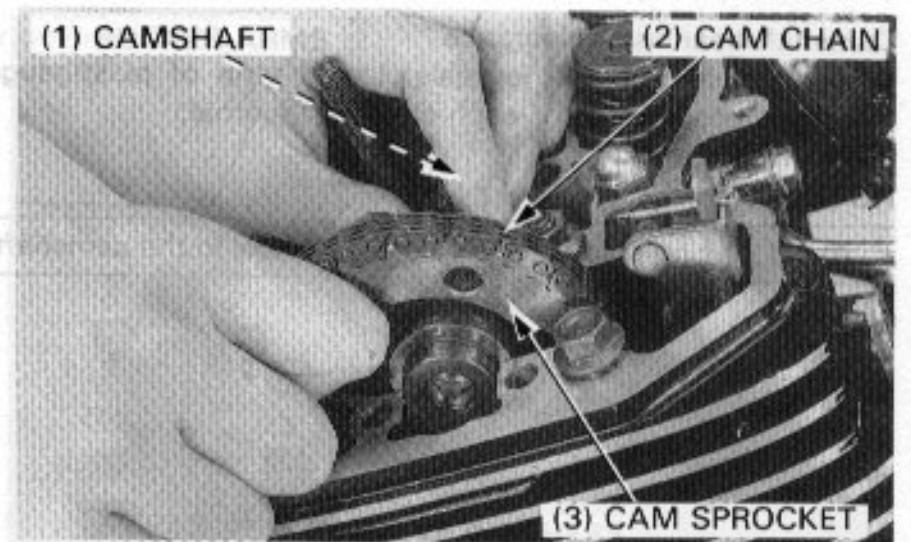
- Be careful not to let the cam sprocket bolts fall into the crankcase.



Remove the cam sprocket from the camshaft flange.

Hang the cam chain on the camshaft behind the camshaft flange and remove the cam sprocket while lifting up the camshaft.

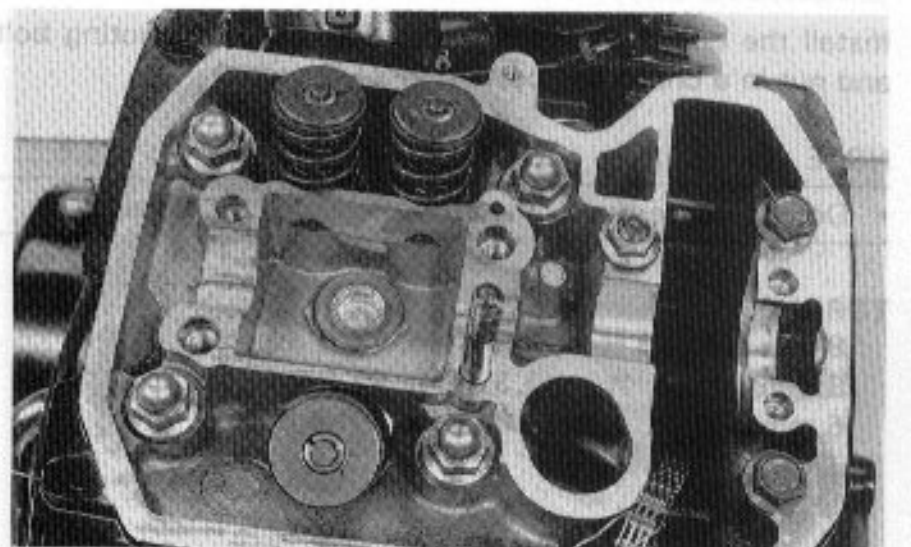
Attach a piece of wire to the cam chain to prevent it from being dropped into the crankcase.



INSPECTION

Cylinder head

Inspect the camshaft holder and cylinder head journal surfaces for scoring or evidence of insufficient lubrication.



Tap the valve stems gently with a soft hammer to firmly seat the cotters.

NOTE

- Support the cylinder head above the work bench surface to prevent possible valve damage.



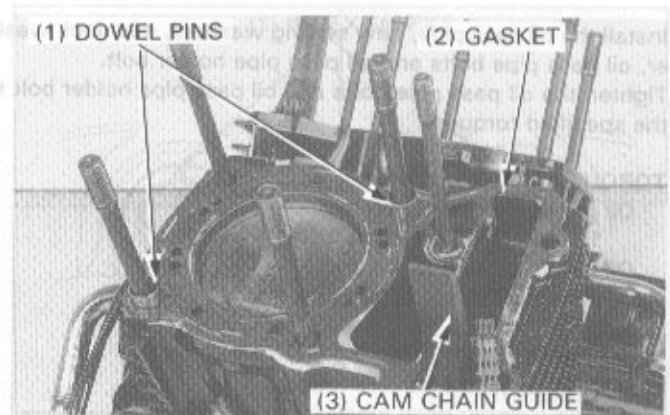
CYLINDER HEAD INSTALLATION

Install the cam chain guide into the cylinder.

Make sure that the cam chain guide bosses are set in the grooves of cylinder.

Clean the cylinder head surface of any gasket material.

Install the dowel pins and a new head gasket.

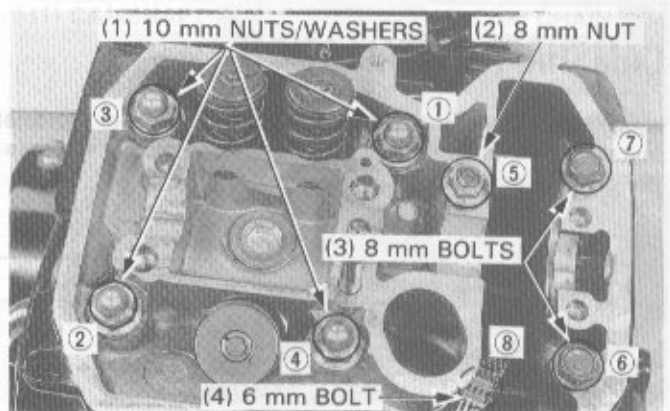


Install the cylinder head.

Install the 10 mm nuts/washers, 8 mm nut, 8 mm bolts and 6 mm bolt and tighten them in a crisscross pattern in 2–3 steps as shown.

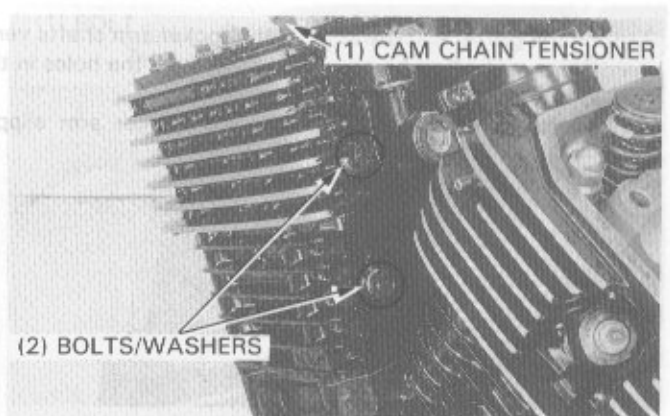
TORQUES:

- 10 mm nut: 48 N·m (4.8 kg-m, 35 ft-lb)
- 8 mm bolt: 23 N·m (2.3 kg-m, 17 ft-lb)
- 8 mm nut: 23 N·m (2.3 kg-m, 17 ft-lb)
- 6 mm bolt: 10 N·m (1.0 kg-m, 7 ft-lb)



Install the cam chain tensioner into the cylinder head and tighten the mounting bolts with new sealing washers.

TORQUE: 10 N·m (1.0 kg-m, 7 ft-lb)

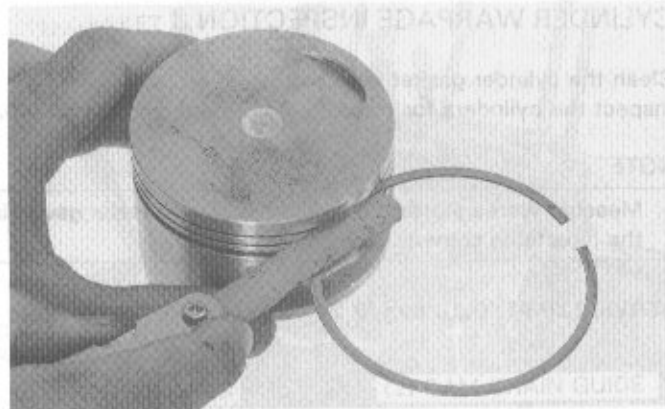


CYLINDER/PISTON

Measure the piston ring-to-groove clearance.

SERVICE LIMITS:

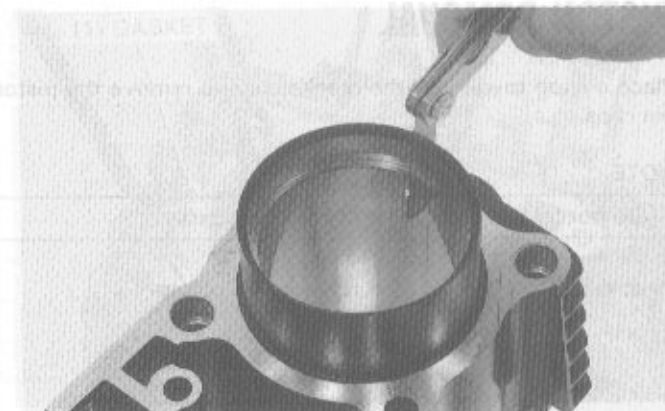
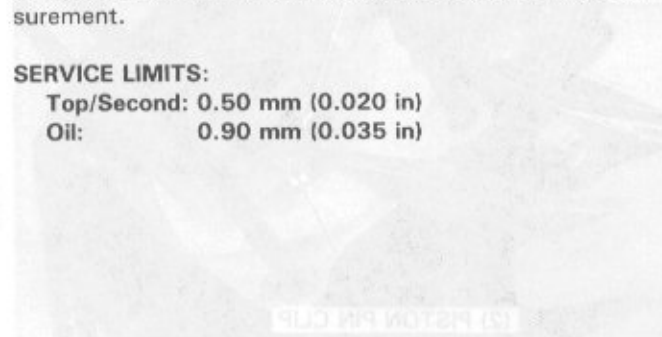
Top: 0.10 mm (0.004 in)
Second: 0.10 mm (0.004 in)



Measure the top and second piston ring end gaps; using a piston, push the ring into the cylinder squarely and make the measurement.

SERVICE LIMITS:

Top/Second: 0.50 mm (0.020 in)
Oil: 0.90 mm (0.035 in)



Measure each piston pin bore.

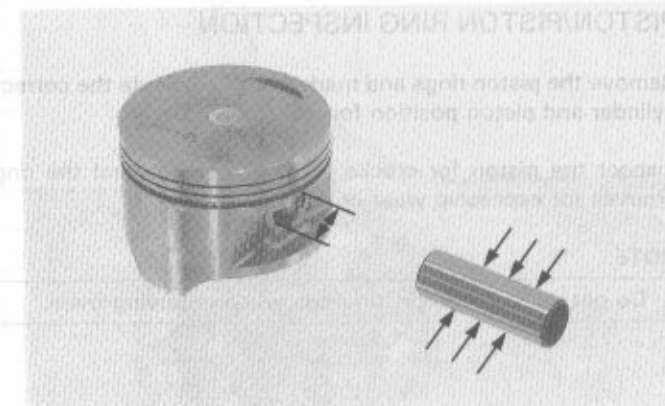
SERVICE LIMIT: 18.05 mm (0.711 in)

Measure each piston pin O.D.

SERVICE LIMIT: 17.80 mm (0.701 in)

Calculate the piston pin to piston clearance.

SERVICE LIMIT: 0.25 mm (0.010 in)



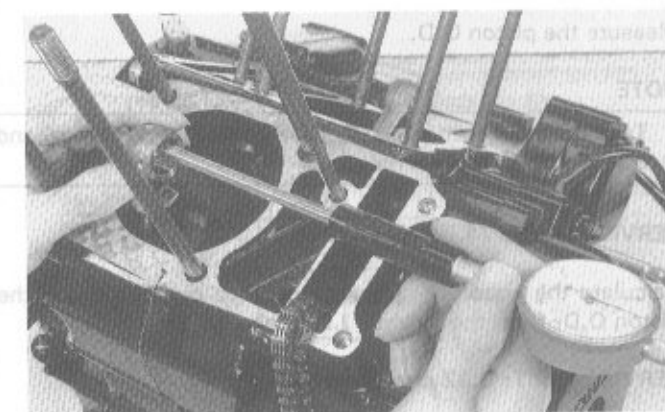
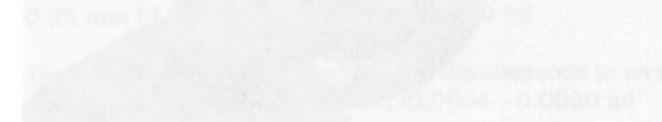
Measure the I.D. of the connecting rod small end.

SERVICE LIMIT: 18.09 mm (0.712 in)

Calculate the piston pin to connecting rod clearance.

SERVICE LIMIT: 0.29 mm (0.011 in)

Refer to section 11 for connecting rod replacement.



MAIN BEARING

OIL CLEARANCE INSPECTION

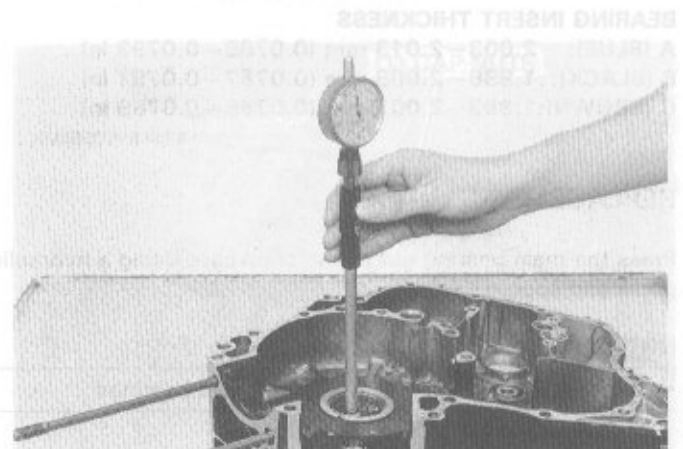
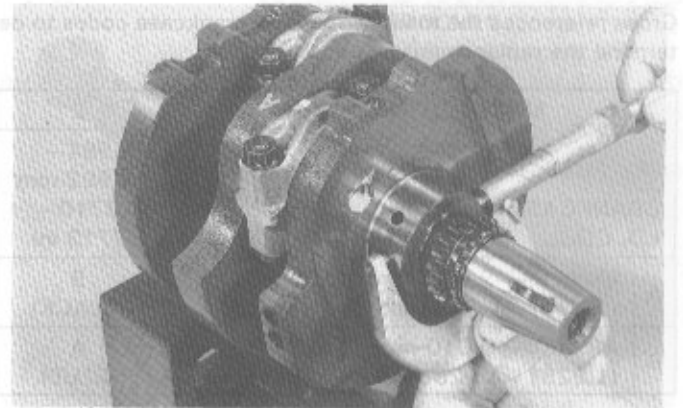
Inspect the main journal visually for unusual wear. Wipe all oil off the main journal, and measure and note the O.D. of the main journal.

Apply molybdenum disulfide grease to the crankpin bearings. Install the connecting rods and bearing caps and tighten the bearing cap nuts.

TORQUE: 34 N·m (3.4 kg-m, 25 ft-lb)

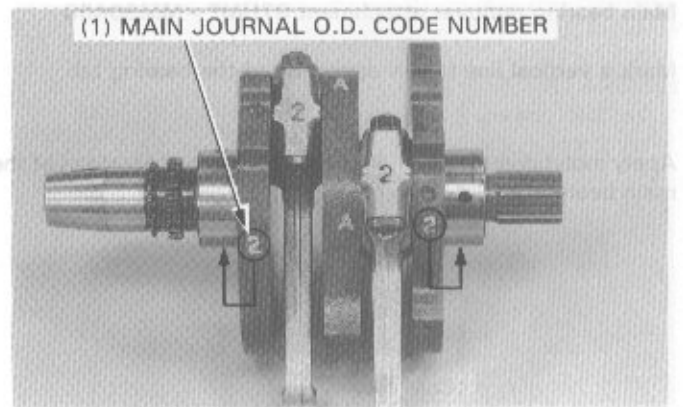
NOTE
Measure the I.D. of the main journal bearing. Calculate the clearance between the main journal and main bearing.

SERVICE LIMIT: 0.06 mm (0.002 in)

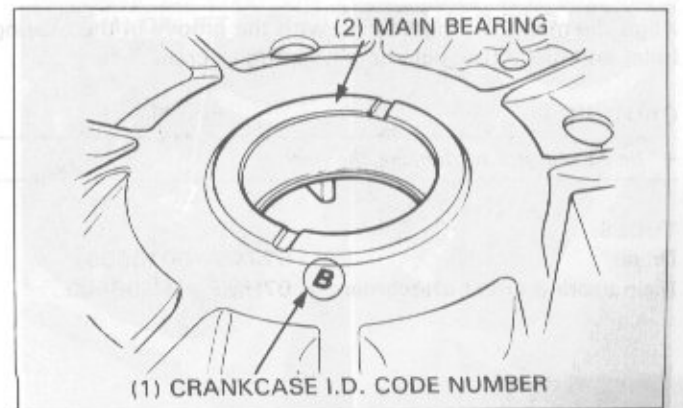


CRANKCASE SELECTION

Note the main journal O.D. code number or measure the main journal O.D.



The crankcase main bearing I.D. code number (A or B) stamped on each crankcase identifies its inside diameter.



12. COWLING/MUFFLER/REAR FENDER

SERVICE INFORMATION	12-1	MUFFLER/EXHAUST PIPES	12-4
COWLING	12-2	REAR FENDER	12-5
SIDE COVER	12-4		

SERVICE INFORMATION

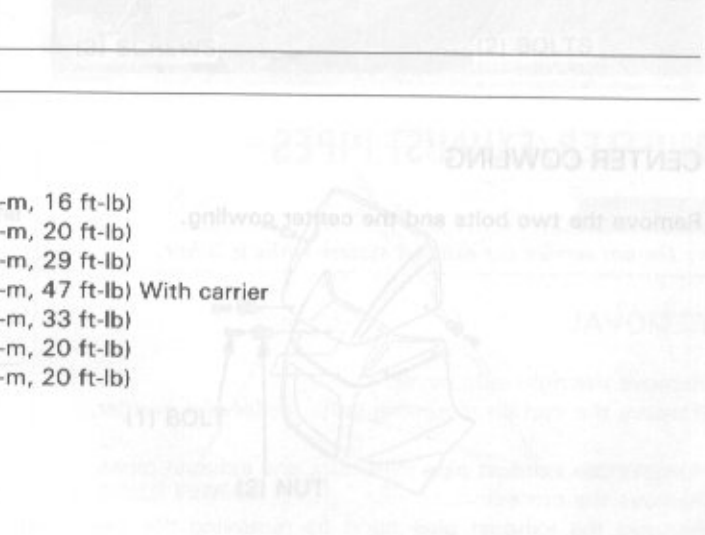
GENERAL

⚠ WARNING

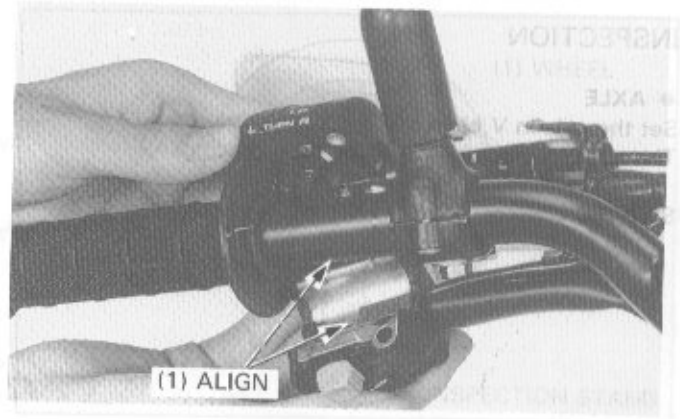
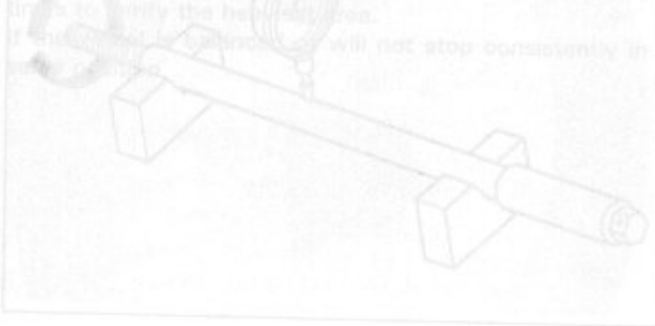
- Do not service the exhaust system while it is hot.

TORQUE VALUES

Exhaust pipe band bolt	22 N·m (2.2 kg-m, 16 ft-lb)
Exhaust pipe joint nut	27 N·m (2.7 kg-m, 20 ft-lb)
Muffler mounting bolt (front)	40 N·m (4.0 kg-m, 29 ft-lb)
(rear)	65 N·m (6.5 kg-m, 47 ft-lb) With carrier
Rear carrier bolt (front/left)	45 N·m (4.5 kg-m, 33 ft-lb)
(rear)	27 N·m (2.7 kg-m, 20 ft-lb)
Turn signal stay bolt	27 N·m (2.7 kg-m, 20 ft-lb)

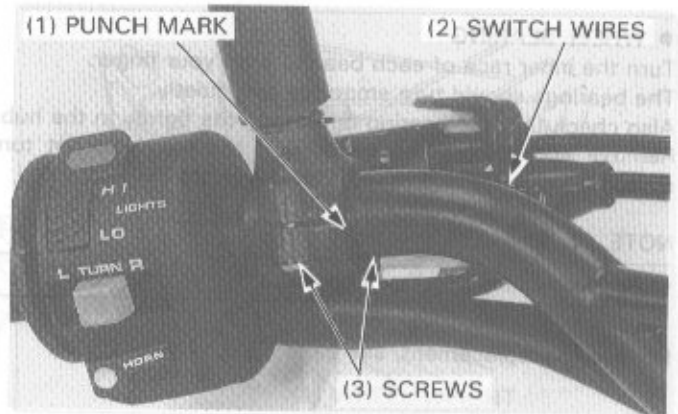


Install the left handlebars switch, aligning the pin with the hole in the handlebars, and tighten the front screw first, then the rear screw.



Align the slit of the clutch lever holder with the punch mark on the handlebars and tighten the front screw first, then the rear screw.

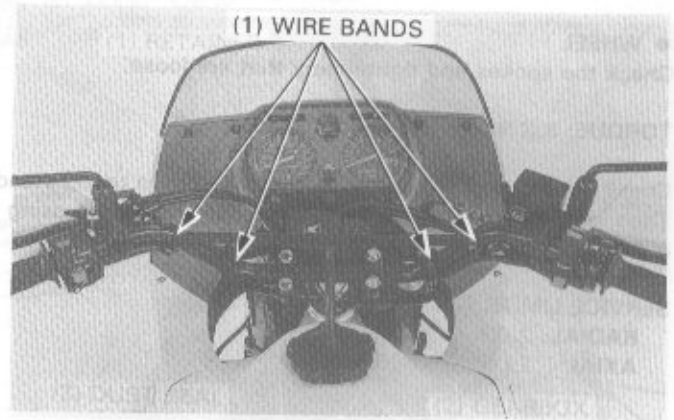
Connect the clutch switch wires to the switch terminals.



Route the switch wires and secure them with the wire bands (page 1-9).

Adjust the following:

- throttle grip free play (page 3-4).
- clutch lever free play (page 3-15).



FRONT WHEEL

REMOVAL

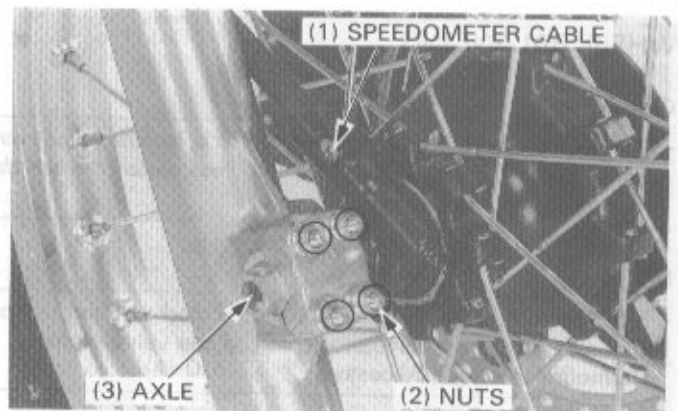
Raise the front wheel off the ground by placing a box or work stand under the engine.

CAUTION

- Do not support the motorcycle by placing a jack or other support under the oil filter.

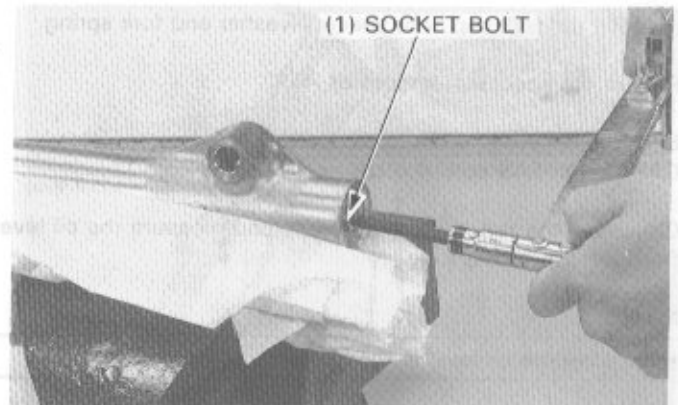
Disconnect the speedometer cable from the speedometer gearbox at the front wheel.

Loosen the axle holder nuts and then remove the front axle. Remove the front wheel.



Place the fork slider in a vise with soft jaws or a shop towel. Apply a locking agent to the socket bolt threads and tighten the bottom socket bolt.

TORQUE: 20 N·m (2.0 kg-m, 14 ft-lb)



Coat a new oil seal with ATF (see next page) and install it onto the fork tube with the marks facing out.

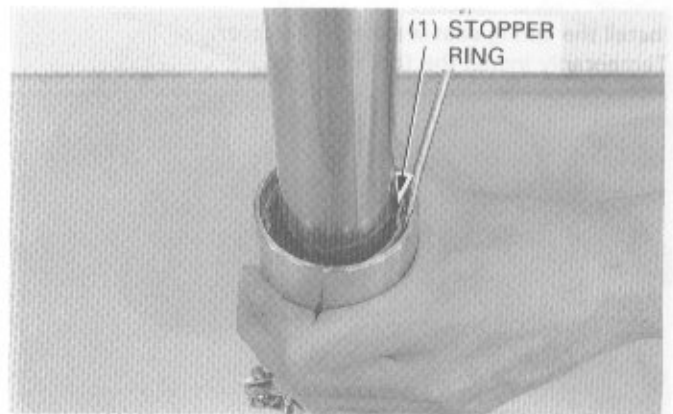
Drive the oil seal in place using a fork seal driver and attachment.

TOOLS:

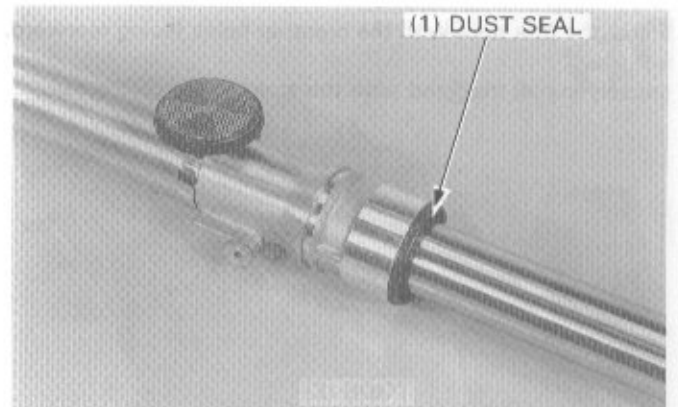
- Fork seal driver 07947-KA50100
- Fork seal driver attachment 07947-KF00100



Install the stopper ring into the groove of the fork slider securely.



Install the dust seal securely.



TOOLS

Special	
Needle bearing driver	07946-KA50000
Driver shaft	07946-MJ00100
Common	
Pin spanner	89201-KA4-811
	89202-KA4-811
Bearing remover shaft	07746-0050100
Bearing remover head, 17 mm	07746-0050500
Driver	07749-0010000
Attachment, 37 x 40 mm	07746-0010200
Attachment, 42 x 47 mm	07746-0010300
Attachment, 32 x 35 mm	07746-0010100
Pilot, 17 mm	07746-0040400
Attachment, 24 x 26 mm	07746-0010700

TROUBLESHOOTING

Wobble or vibration in motorcycle

- Bent rim
- Loose wheel bearing(s)
- Loose or bent spokes
- Damaged tire
- Axle nut tightened properly
- Swingarm pivot bearing worn
- Chain adjusters not adjusted equally
- Bent frame or swingarm

Soft suspension

- Weak spring
- Improper shock absorber spring preload

Hard suspension

- Improper shock absorber spring preload
- Bent shock absorber rod
- Swingarm pivot bearings damaged
- Bent frame or swingarm

Suspension noise

- Faulty rear damper
- Loose fasteners
- Worn shock linkage pivot bushing(s)

Poor brake performance

- Improper brake adjustment
- Worn brake shoes
- Brake linings oily, greasy or dirty
- Worn brake cam
- Worn brake drum
- Brake arm serrations improperly engaged
- Brake shoes worn at cam contact area

SERVICE INFORMATION
TROUBLESHOOTING
REAR WHEEL
REAR BRAKE

SERVICE INFORMATION
GENERAL

CAUTION

SPECIFICATION

ITEM	REAR WHEEL TURNOUT	REAR AXLE TURNOUT	REAR BRAKE DRUM I.D.	REAR BRAKE LINING THICKNESS	SHOCK ABSORBER SPRING FREE LENGTH	REAR SUSPENSION DAMPER COMPRESSION
	1.0 mm (0.039 in)	1.0 mm (0.039 in)	130.0 mm (5.118 in)	4.0 mm (0.157 in)	288.5 mm (11.358 in)	33 kg (72.85 lb)

TORQUE VALUES

ITEM	TORQUE
Spokes	3.8 N·m (0.38 kg-m, 3.7 ft-lb)
Driven sprocket nut	44 N·m (4.4 kg-m, 32 ft-lb)
Rear axle nut	95 N·m (9.5 kg-m, 69 ft-lb)
Shock absorber lower mount lock nut	88 N·m (8.8 kg-m, 64 ft-lb)
Shock absorber spring lock nut	80 N·m (8.0 kg-m, 59 ft-lb)
Shock absorber mounting bolt upper/winner	45 N·m (4.5 kg-m, 33 ft-lb)
Shock arm-to-swingarm nut	102 N·m (10.2 kg-m, 75 ft-lb)
Shock link-to-shock eyelet	65 N·m (6.5 kg-m, 47 ft-lb)
Shock link-to-frame nut	89 N·m (8.9 kg-m, 65 ft-lb)
Swingarm/engine shock nut	170 N·m (17.0 kg-m, 80 ft-lb)

REAR WHEEL/BRAKE/SUSPENSION

SHOCK ABSORBER DISPOSAL PROCEDURE

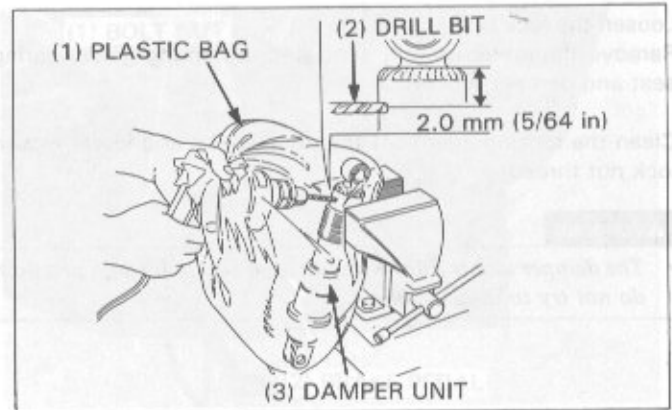
Center punch damper case to mark the drilling point, approximately 2.0 mm (5/64 in) from the top surface. Wrap the damper unit inside a plastic bag. Support the damper unit upright in a vise as shown.

Through the open end of the bag, insert a drill motor with a sharp 2–3 mm (5/64–1/8 in) drill bit.

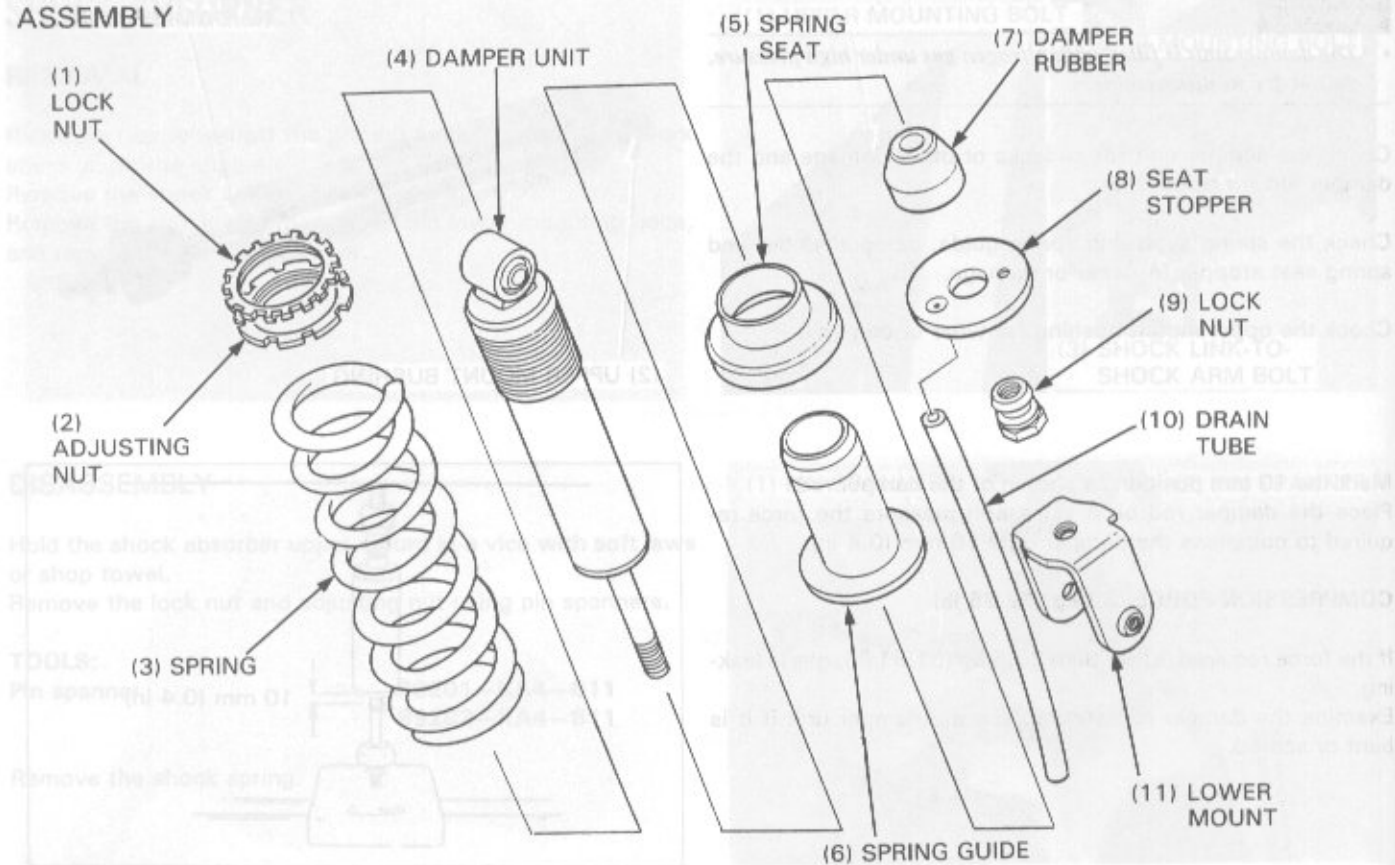
▲ WARNING

- Do not use a dull drill bit which could cause a built-up of excessive heat and pressure inside the damper, leading to explosion and severe personal injury.
- The shock absorber contains nitrogen gas and oil under high pressure. Do not drill any farther down the damper case than the measurement given above, or you may drill into the oil chamber; oil escaping under high pressure may cause serious personal injury.
- Always wear eye protection to avoid getting metal shavings in your eyes when the gas pressure is released. The plastic bag is only intended to shield you from the escaping gas.

Hold the bag around the drill motor and briefly run the drill motor inside the bag; this will inflate the bag with air from the motor and help keep the bag from getting caught in the bit when you start.



ASSEMBLY



TROUBLESHOOTING

Brake lever soft or spongy

- Air bubbles in hydraulic system.
- Low fluid level.
- Hydraulic system leaking.
- Faulty dust seal or piston seal.

Brake lever too hard

- Sticking piston(s).
- Clogged hydraulic system.
- Pads glazed or worn excessively.

Brake drag

- Hydraulic system sticking.
- Sticking piston(s).

Brake grab or pull to one side

- Pads contaminated.
- Disc or wheel misaligned

Brake chatter or squeal

- Pads contaminated.
- Excessive disc runout.
- Caliper installed incorrectly.
- Disc or wheel misaligned.

15-1	BRAKE PAD/DISC
15-2	MASTER CYLINDER
15-3	BRAKE CALIPER

TRUBLESHOOTING	SERVICE INFORMATION
BRAKE FLUID REPLACEMENT	
AIR BLEEDING	

SERVICE INFORMATION

GENERAL

- Always check brake operation before riding the motorcycle.
- Towel.
- Brake fluid will damage painted, plastic, and rubber parts. Wipe away spilled brake fluid immediately with a shop towel. If fluid does get on these parts, wash with soap and water.
- Do not allow foreign material to enter the system when filling the reservoir.
- If the hydraulic system has been opened, or if the brakes feel spongy, the system must be bled.
- Use DOT 3 or 4 brake fluid. Do not use DOT 5.5.

SPECIFICATIONS

ITEM	STANDARD	SERVICE LIMIT
Disc thickness	4.8 (0.181)	(0.181) (0.001)
Disc runout		0.30 (0.012)
Master cylinder I.D.	12.700 - 12.743 (0.5000 - 0.5017)	12.78 (0.503)
Master piston O.D.	12.687 - 12.684 (0.4994 - 0.4994)	12.68 (0.499)
Caliper cylinder I.D.	30.230 - 30.280 (1.1902 - 1.1921)	30.28 (1.193)
Caliper piston O.D.	30.148 - 30.200 (1.1869 - 1.1921)	30.18 (1.187)

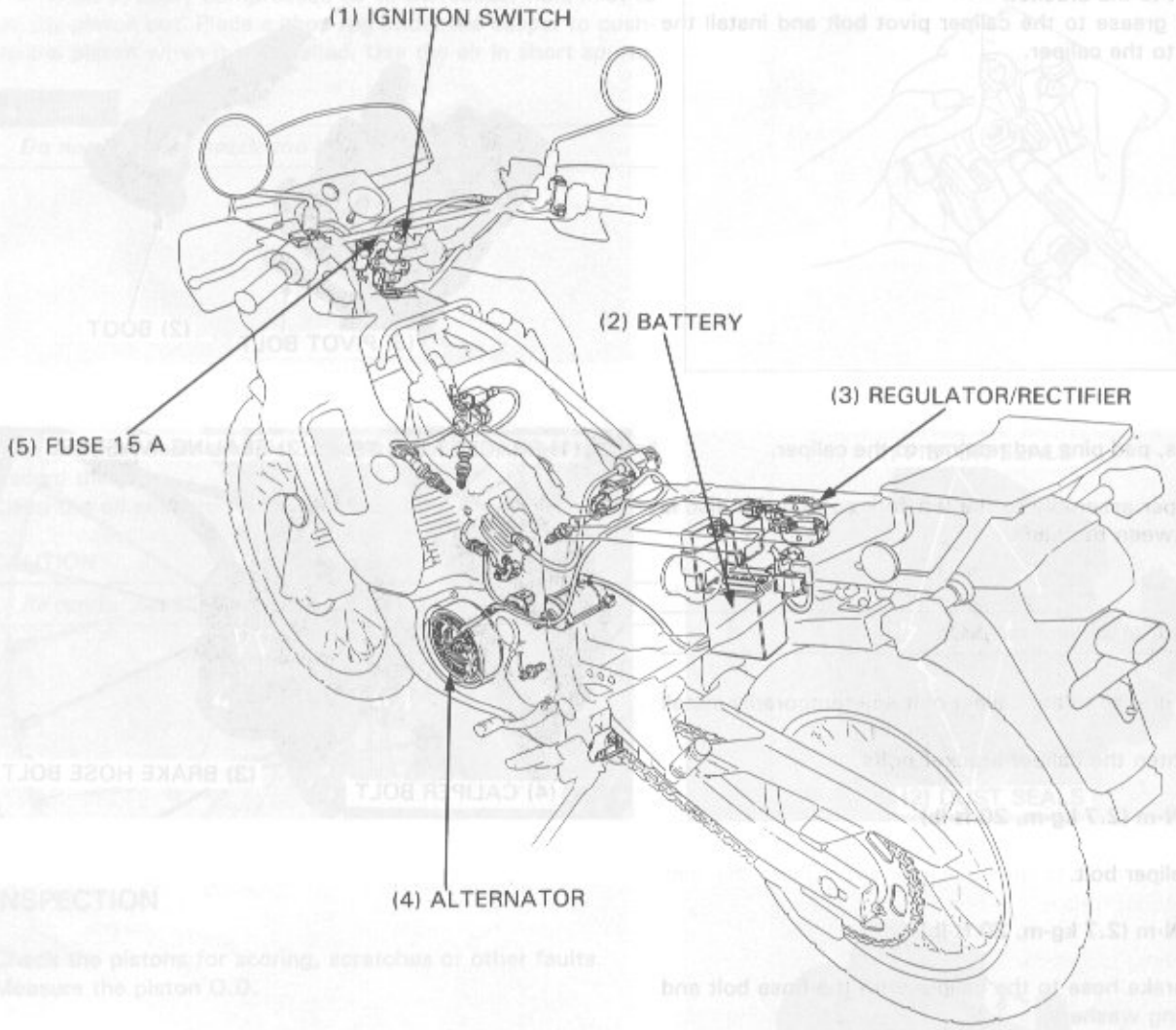
TORQUE

- 23 N·m (2.3 kg-m, 17 ft-lb) Caliper pivot bolt
- 35 N·m (3.5 kg-m, 25 ft-lb) Brake hose bolt
- 17 N·m (1.7 kg-m, 12 ft-lb) Brake hose joint nut
- 35 N·m (3.5 kg-m, 25 ft-lb) Brake hose joint
- 33 N·m (3.3 kg-m, 24 ft-lb) Caliper pivot bolt
- 35 N·m (3.5 kg-m, 25 ft-lb) Brake hose bolt
- 23 N·m (2.3 kg-m, 17 ft-lb) Caliper pivot bolt

TOOL

- Special
- Brake ring pliers

BATTERY/CHARGING SYSTEM



INSPECTION

Check the pistons for scoring, scratches or other faults.
 Measure the piston O.D.

SERVICE LIMIT: 30.14 mm (1.187 in)

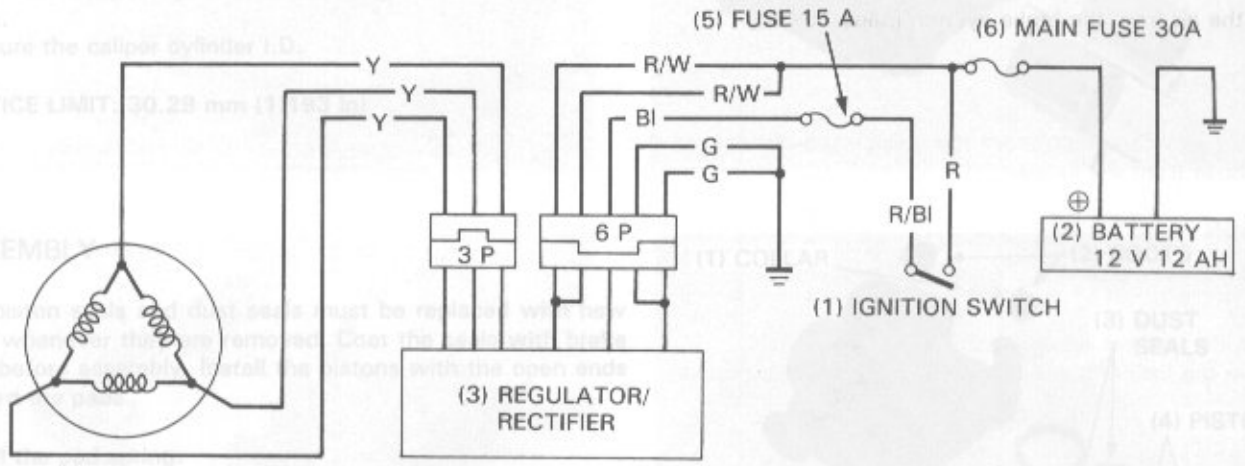
Check the caliper cylinder for scoring, scratches or other faults.
 Measure the caliper cylinder I.D.

SERVICE LIMIT: 30.29 mm (1.193 in)

ASSEMBLY

The piston rings must be installed with the oil rings on the outside.
 Once the rings are installed, coat the cylinder with oil.
 Toward the top of the cylinder, install the pistons with the open ends

Apply silicone grease to the caliper bolt and install it.
 Apply silicone grease to the caliper pivot and install it.
 Apply silicone grease to the caliper bolt and install it.



17. IGNITION SYSTEM

SERVICE INFORMATION	17-1	PULSE GENERATOR	17-5
TROUBLESHOOTING	17-2	SIDE STAND SWITCH	17-6
SYSTEM INSPECTION	17-4	SILICON DIODE	17-6
IGNITION COIL	17-4	IGNITION TIMING	17-6

SERVICE INFORMATION

GENERAL

- Ignition timing cannot be adjusted since the CDI (Capacitive Discharge Ignition) unit is non-adjustable. If ignition timing is incorrect, check the system components and replace the faulty parts.
- When inspect the ignition system, check the system components and lines step-by-step according to the troubleshooting on next page.
- Each pair of the spark plugs (FRONT and REAR) has its own ignition circuit.
- For spark plug gap inspection and adjustment procedure, see page 3-6.
- For pulse generator removal and installation, see page 7-9.

SPECIFICATIONS

ITEM		SPECIFICATIONS (20°C/68°F)	
		NGK	ND
Spark plugs	Standard	DPR8EA-9	X24EPR-U9
	For cold climate (Below 5°C/41°F)	DPR7EA-9	X22EPR-U9
	For extended high speed driving	DPR9EA-9	X27EPR-U9
	Spark plug gap	0.8–0.9 mm (0.031–0.035 in)	
Ignition timing	Initial (F mark)	10° BTDC/idle	
	Advance starts	2,000 rpm	
	Full advance	30° BTDC/4,500 rpm	
Ignition coil resistance	Primary	0.1–0.2 Ω	
	Secondary	With cap	7.4–10.8 kΩ
		Without cap	3.6–4.5 kΩ
Pulse generator	Coil resistance	360–540 Ω	
Firing order		Front–232°–Rear–488°–Front	

17

TOOLS

Circuit tester (SANWA) or
Circuit tester (KOWA) or
Digital multi-tester (KOWA)

07308–0020000
TH–5H
07411–0020000 or KS-AHM-32-003 (U.S.A. only)

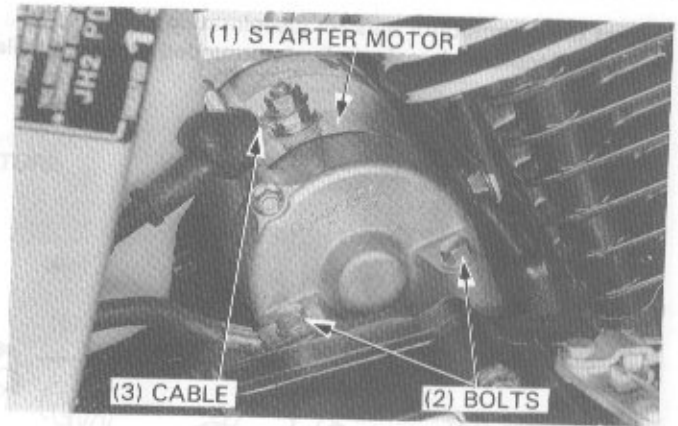
STARTER MOTOR

REMOVAL

▲ WARNING

- *With the ignition switch OFF, remove the negative cable at the battery before servicing the starter motor.*

Disconnect the starter motor cable.
Remove the motor mounting bolts and motor.



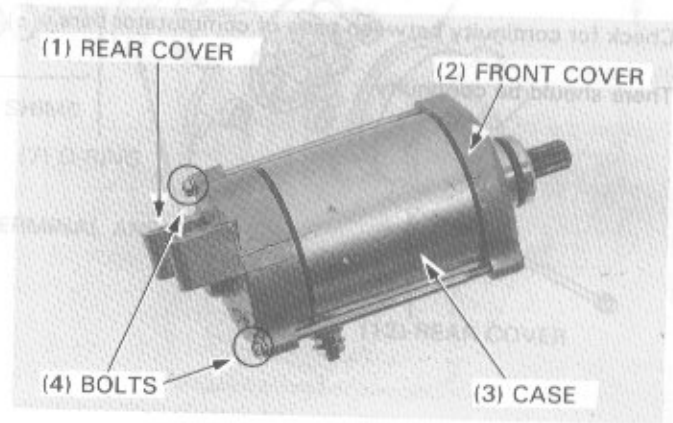
DISASSEMBLY

Remove the following components:

- Motor case bolts.
- Front cover and rear cover.
- Armature.

NOTE

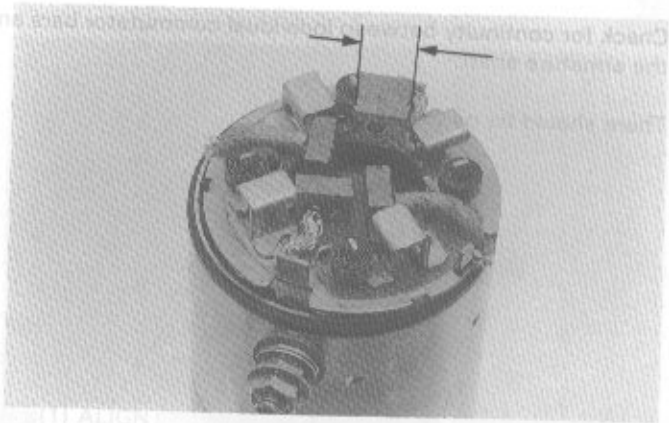
- Record the location and number of shims.



INSPECTION

Measure each brush length.

SERVICE LIMIT: 6.5 mm (0.26 in)

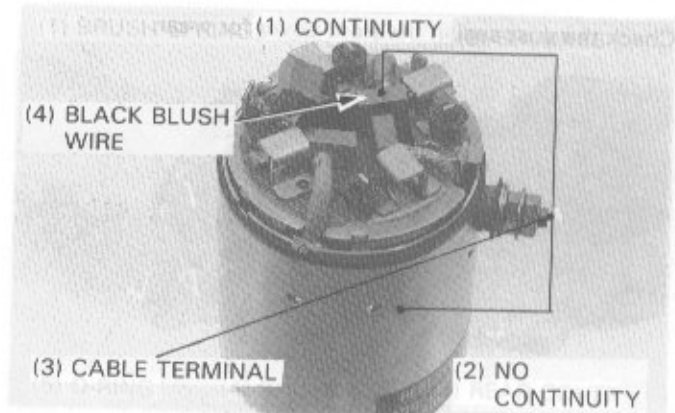


Check for continuity from the cable terminal to the motor case and from the cable terminal to the black brush wire.

CABLE TERMINAL—MOTOR CASE
NO CONTINUITY: NORMAL

CABLE TERMINAL—BLACK BRUSH WIRE
CONTINUITY: NORMAL

Disassemble them if necessary.



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Remove the following screws, connectors and components:

TACHOMETER

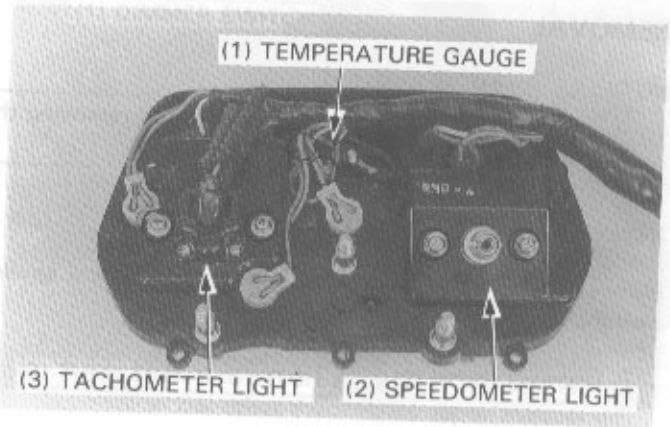
- Three connectors and four screws.

TEMPERATURE GAUGE

- Three screws.

SPEEDOMETER

- Two screws.



INSTALLATION

Install the instruments in the reverse order of removal.

NOTE

- Install the temperature gauge wires with screws according to the support on the lower cover.
- Route the wire properly (page 1-9).

IGNITION SWITCH

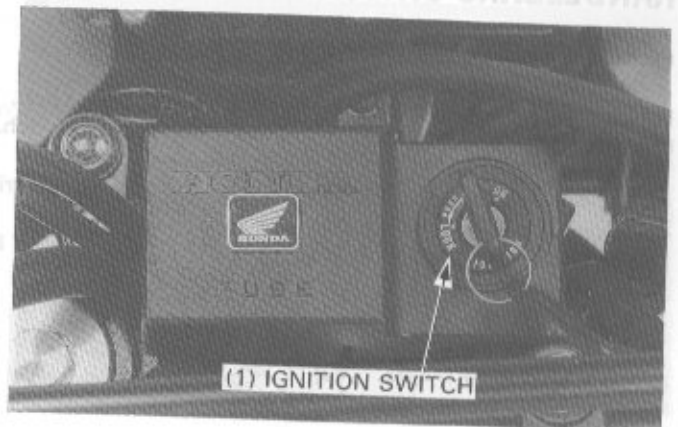
INSPECTION

Remove the right upper cover (page 12-2).
Disconnect the ignition switch red 4P connector.

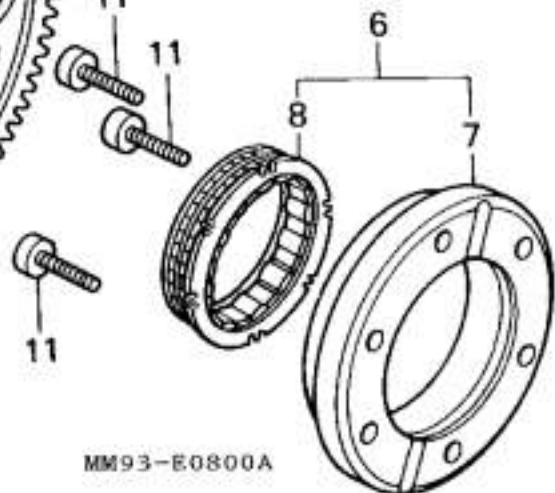
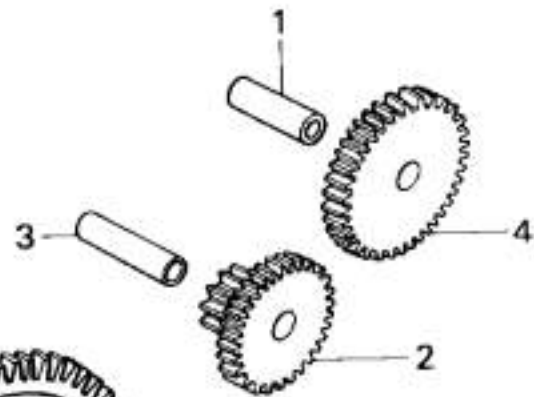
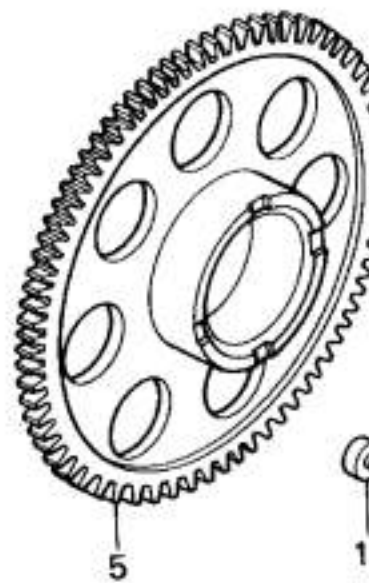
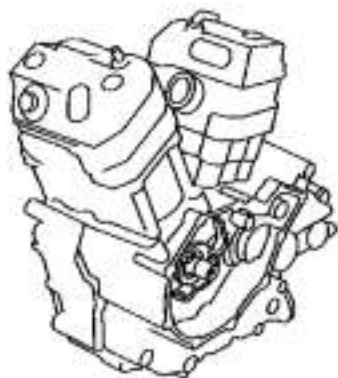
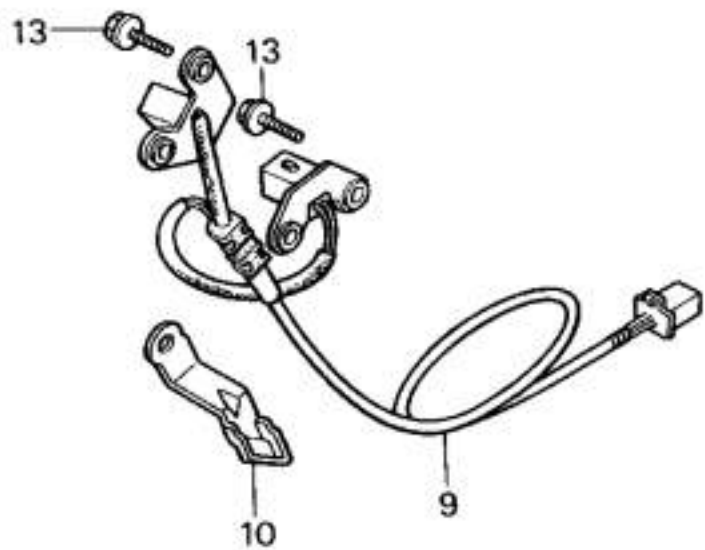
Check for continuity between the ignition switch connector terminals in each switch position.

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

TERMINAL	BAT1	BAT2	FAN
ON	○	○	○
OFF			
LOCK			
COLOR	R	R/BI	Bu/O

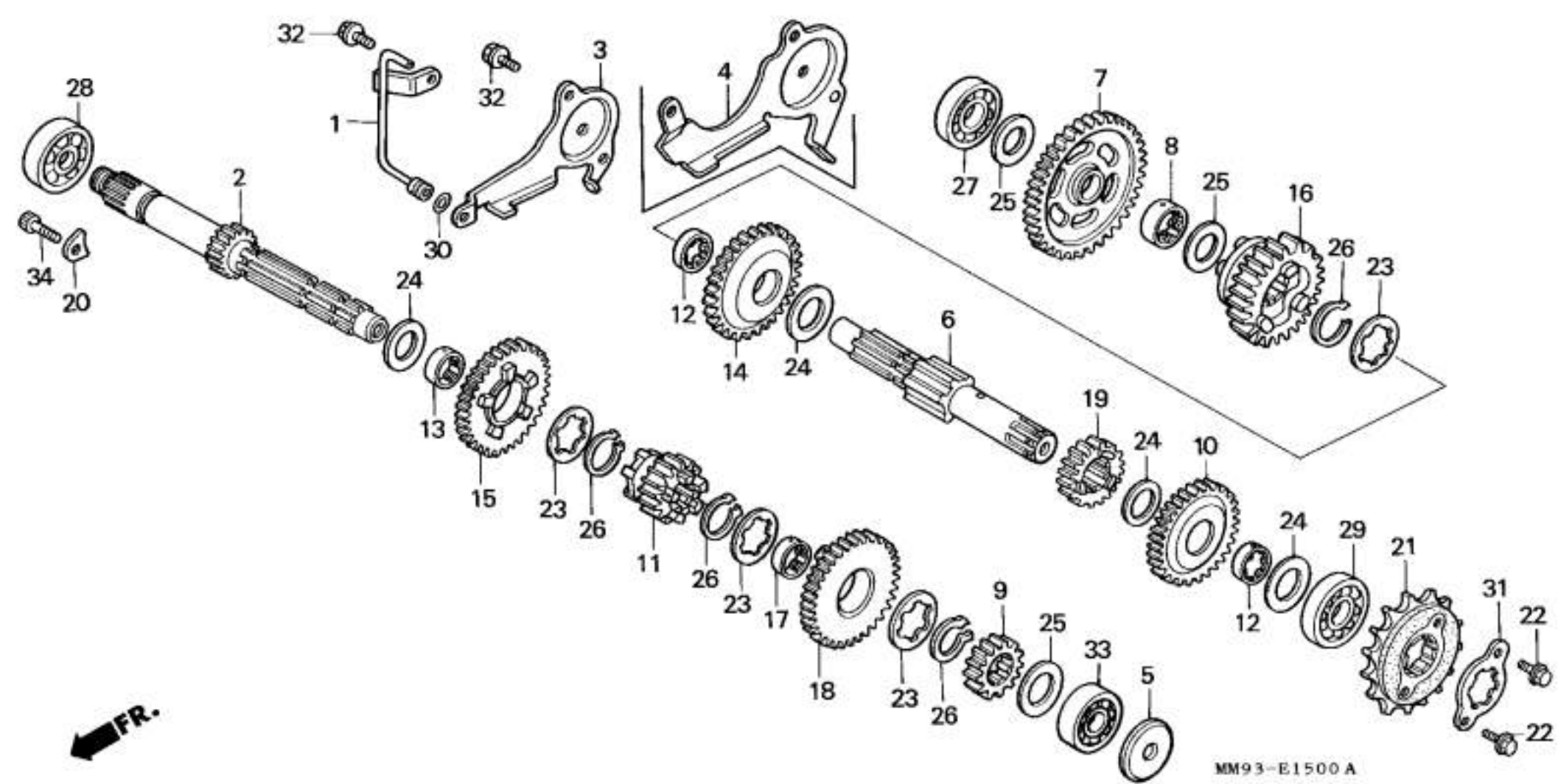


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Breather	3-6	Schedule	3-3
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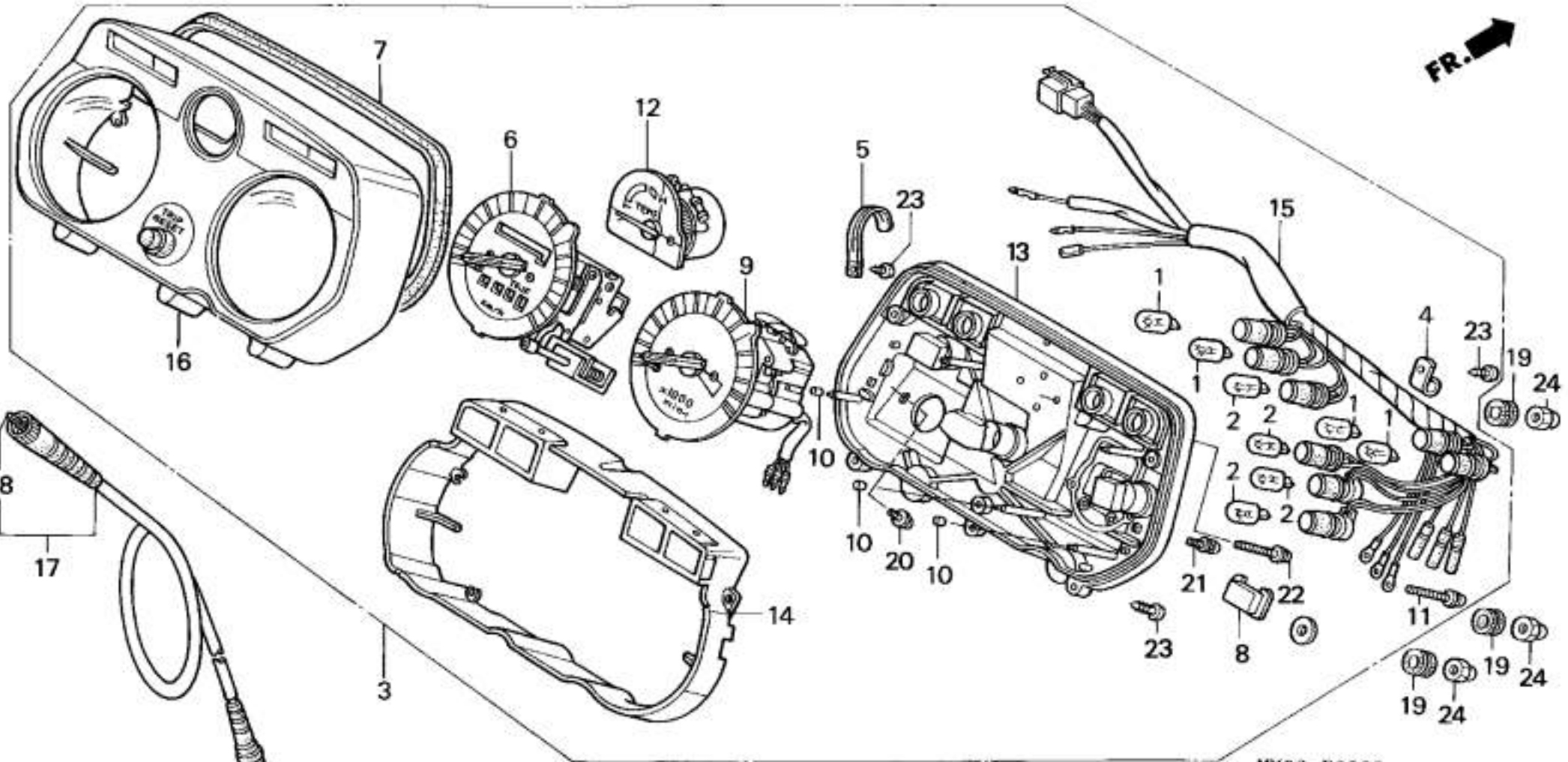


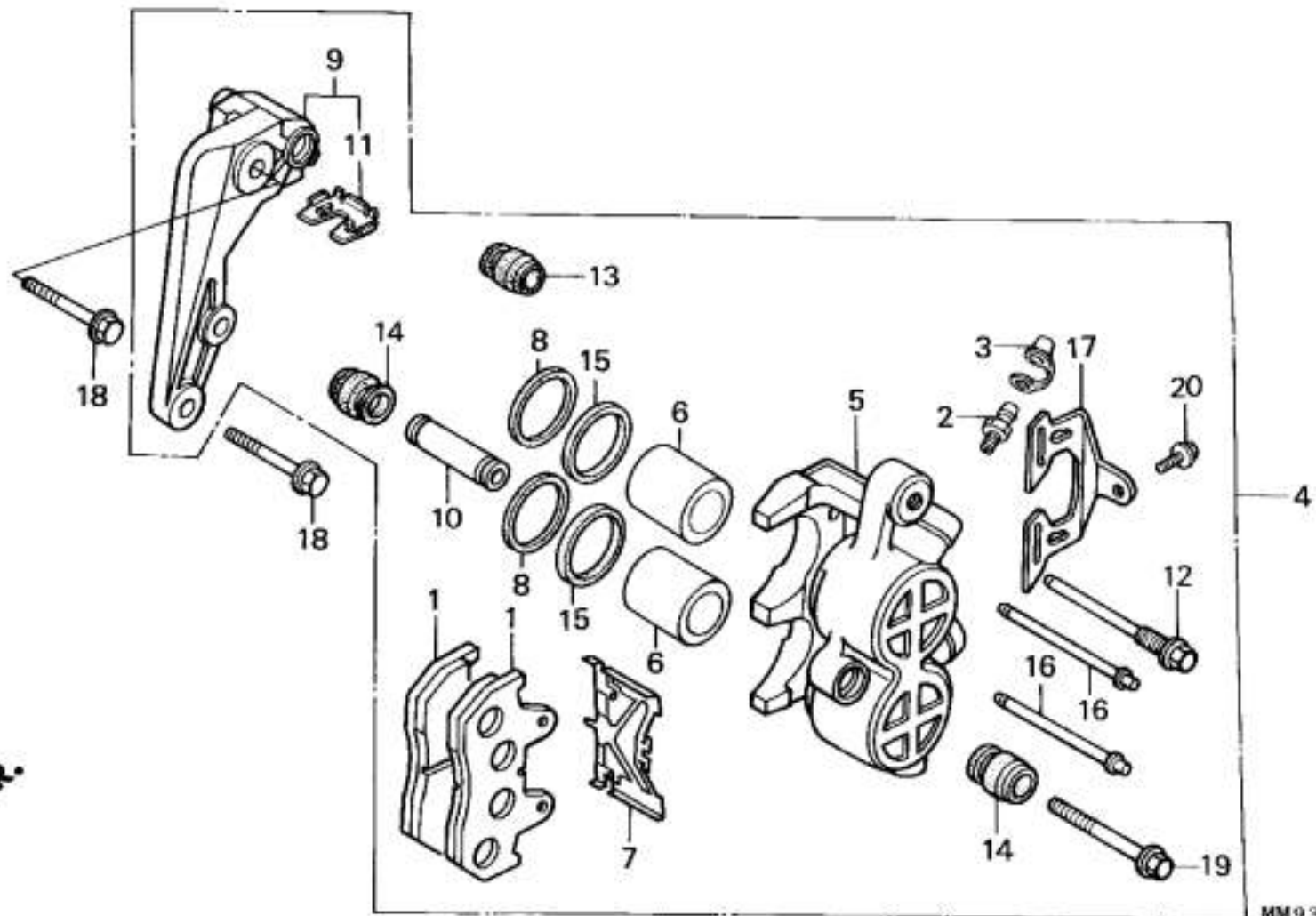
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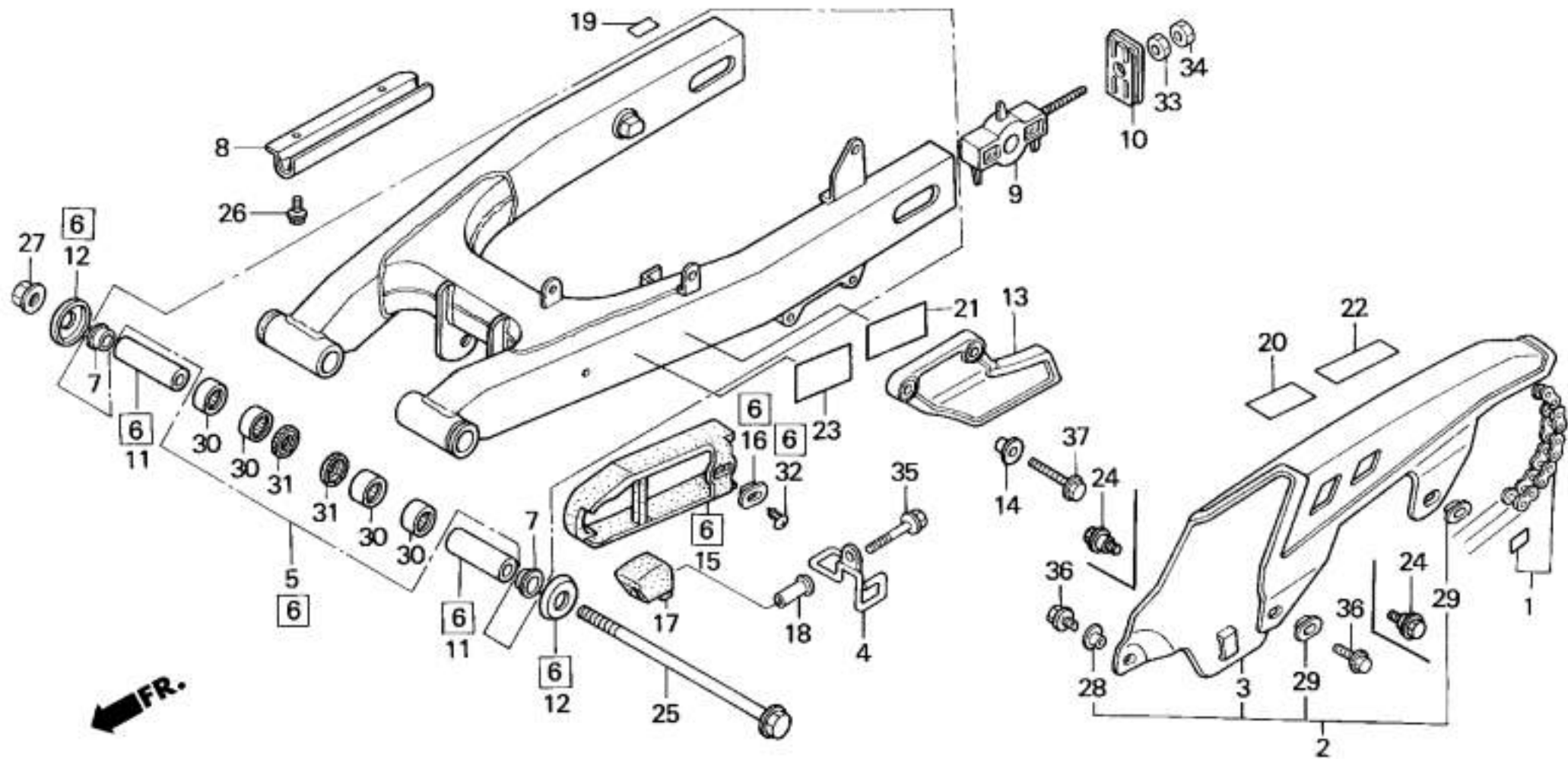
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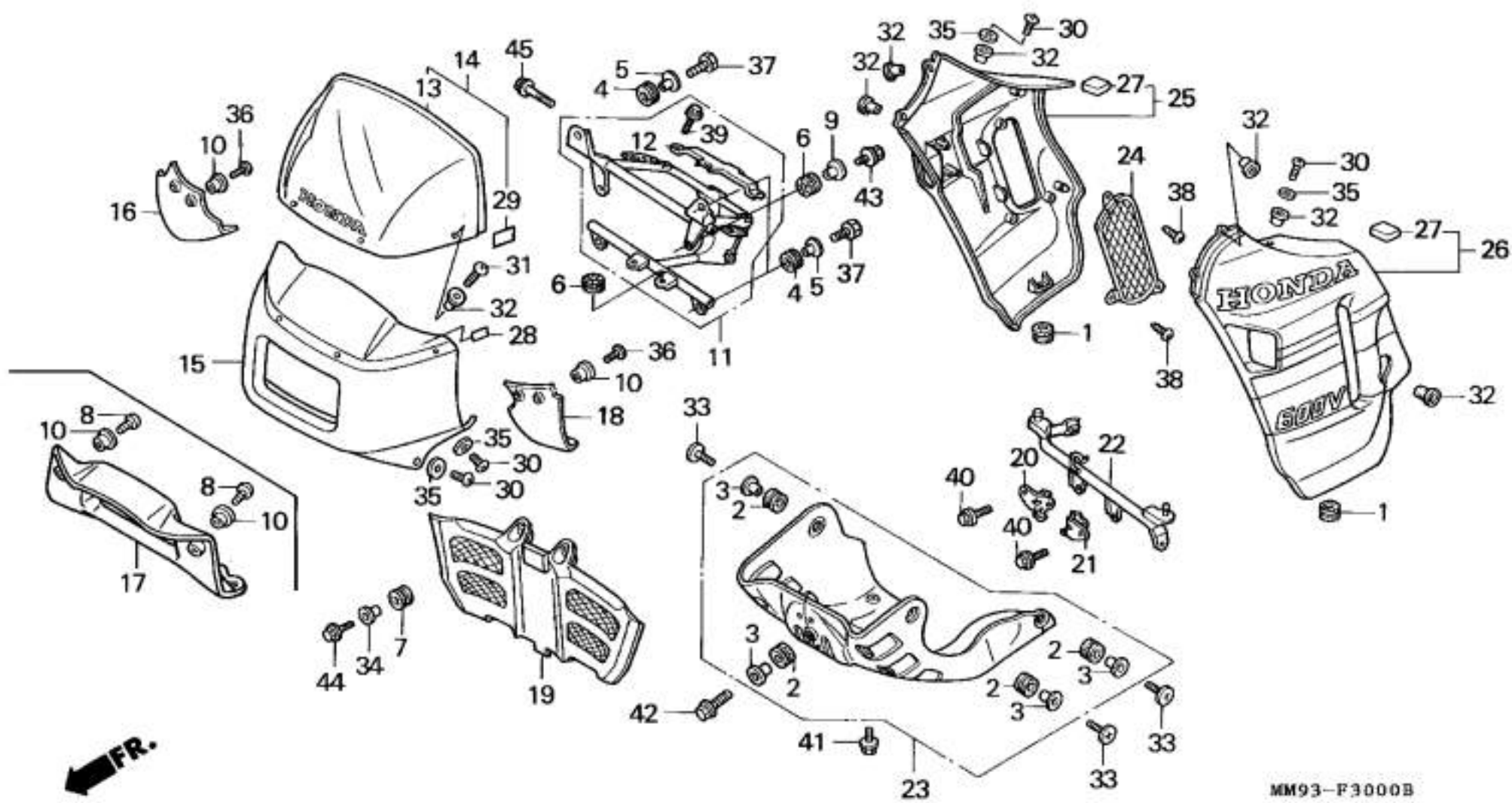


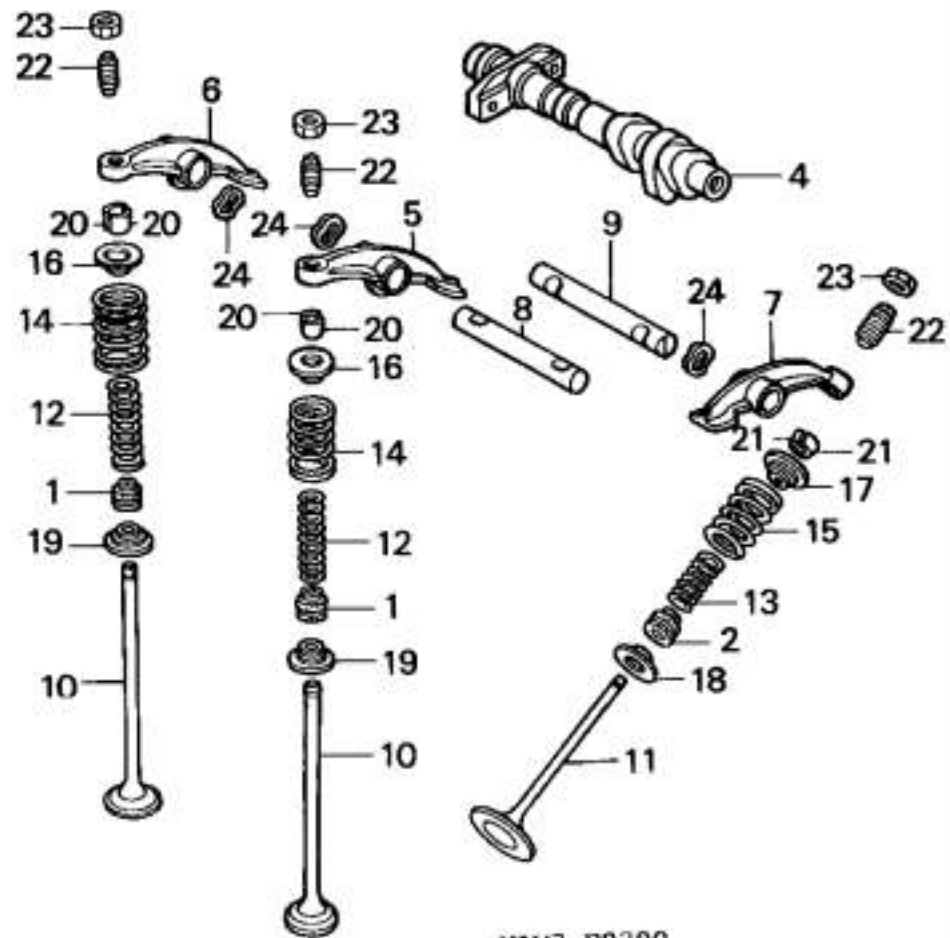
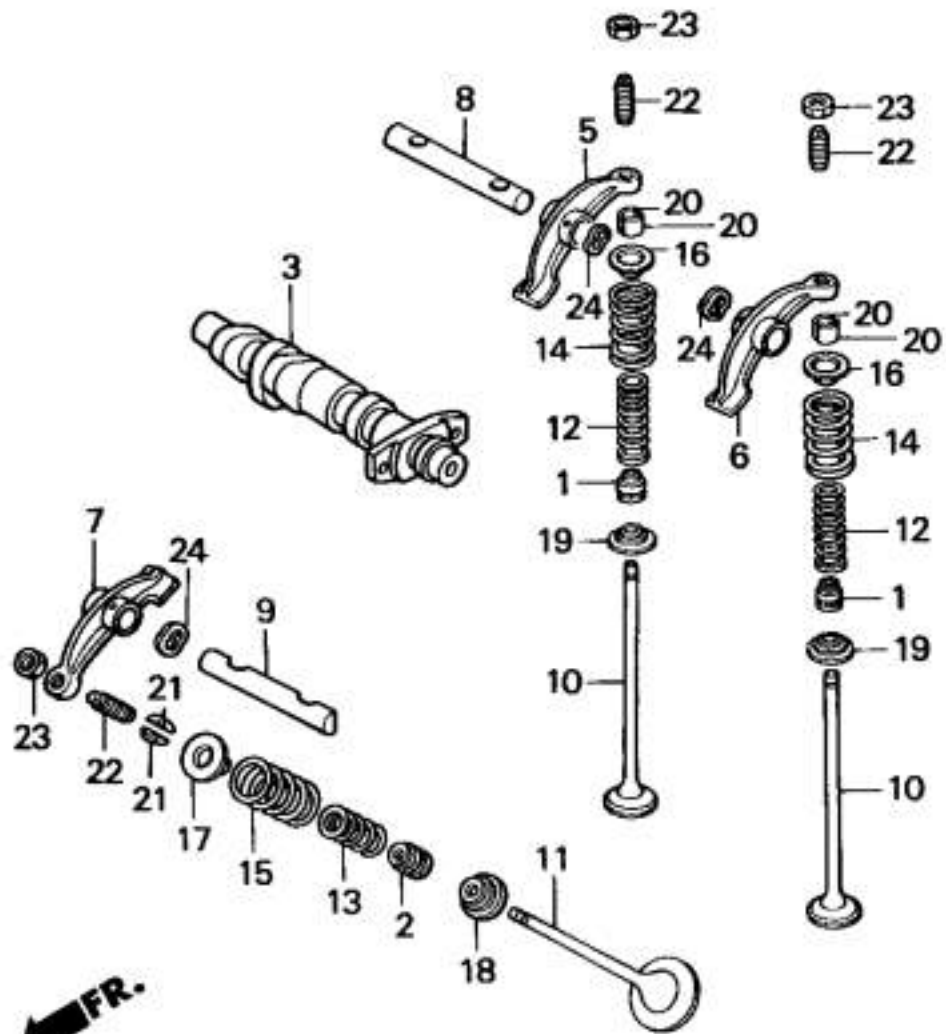
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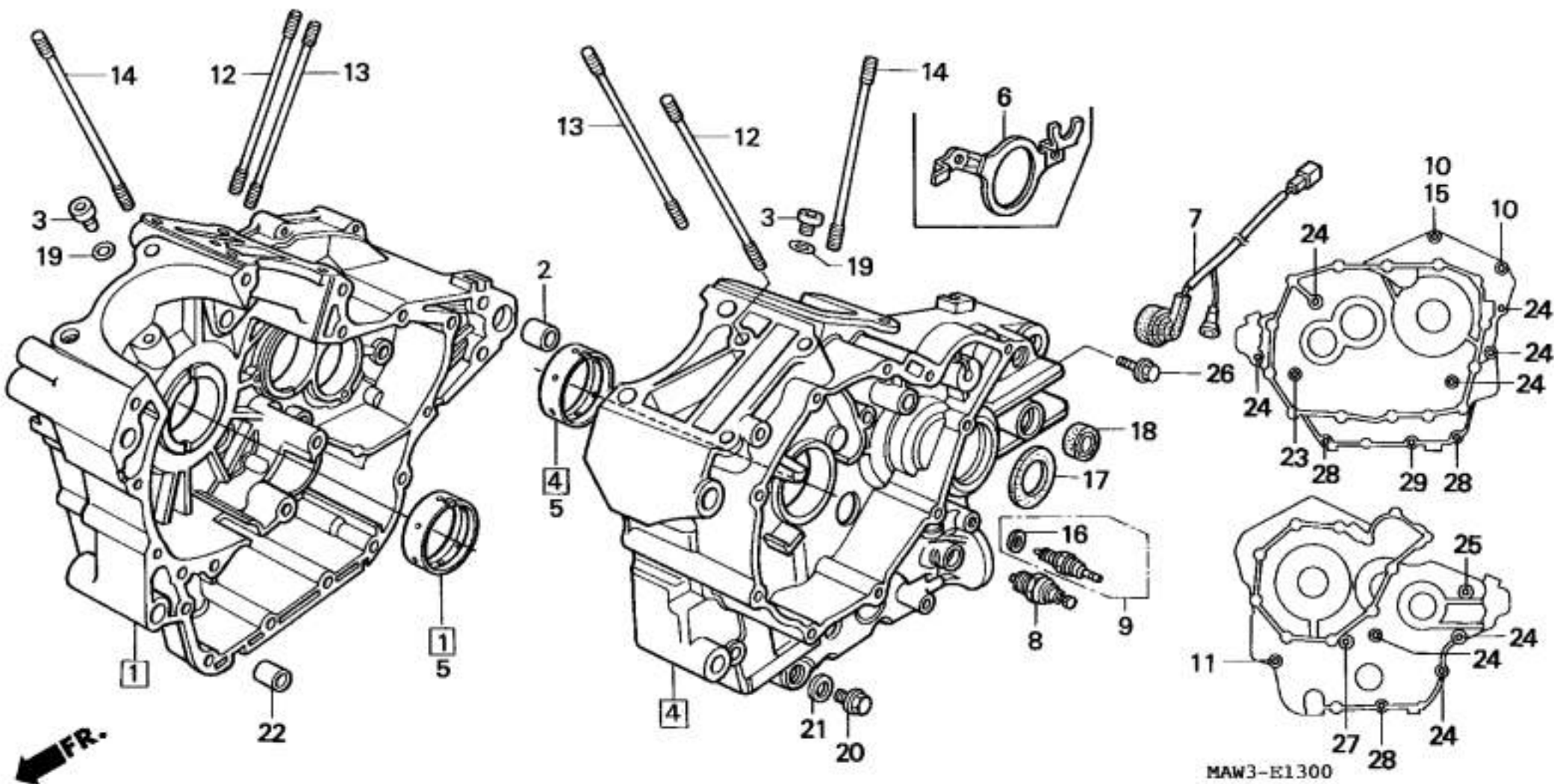






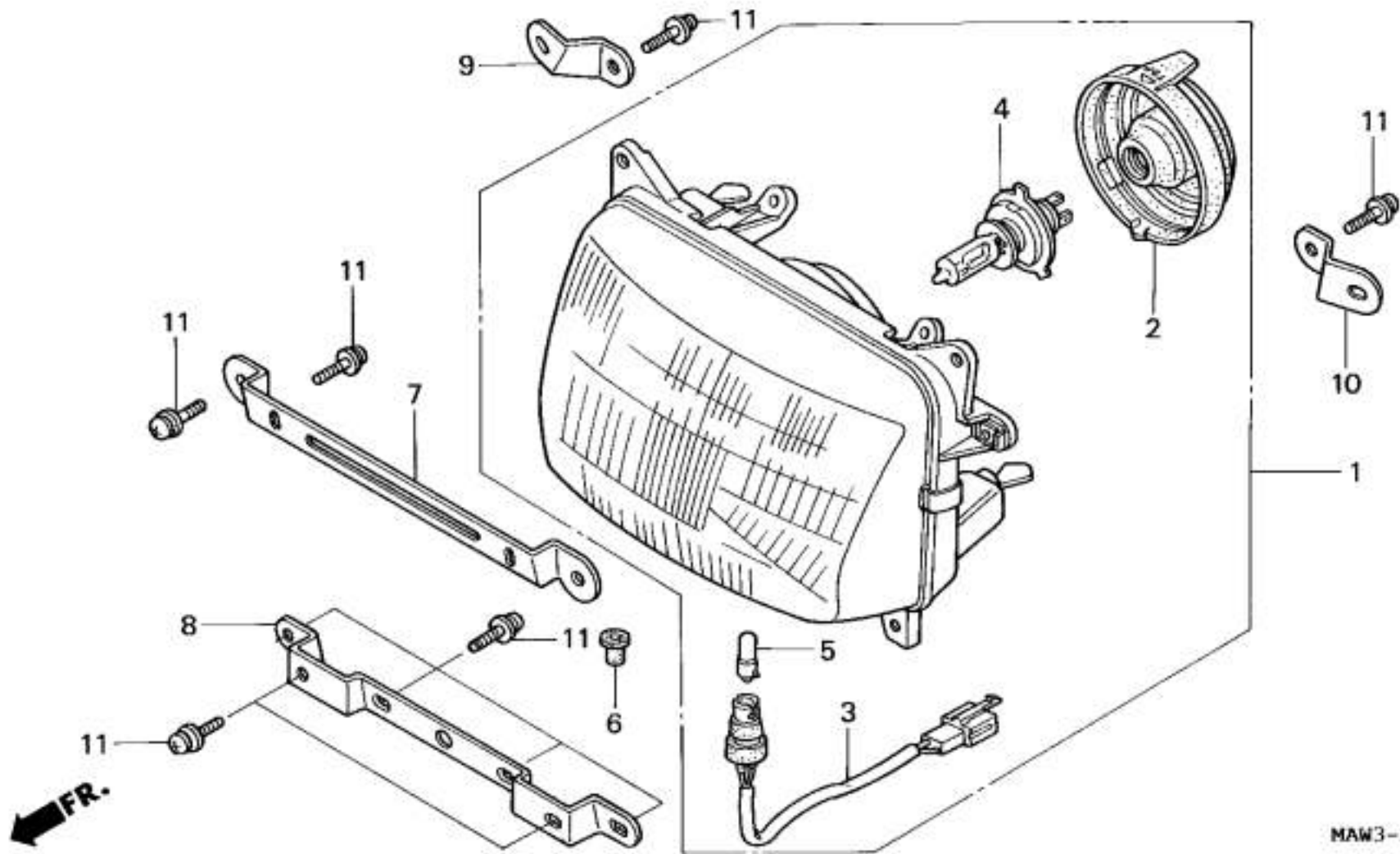


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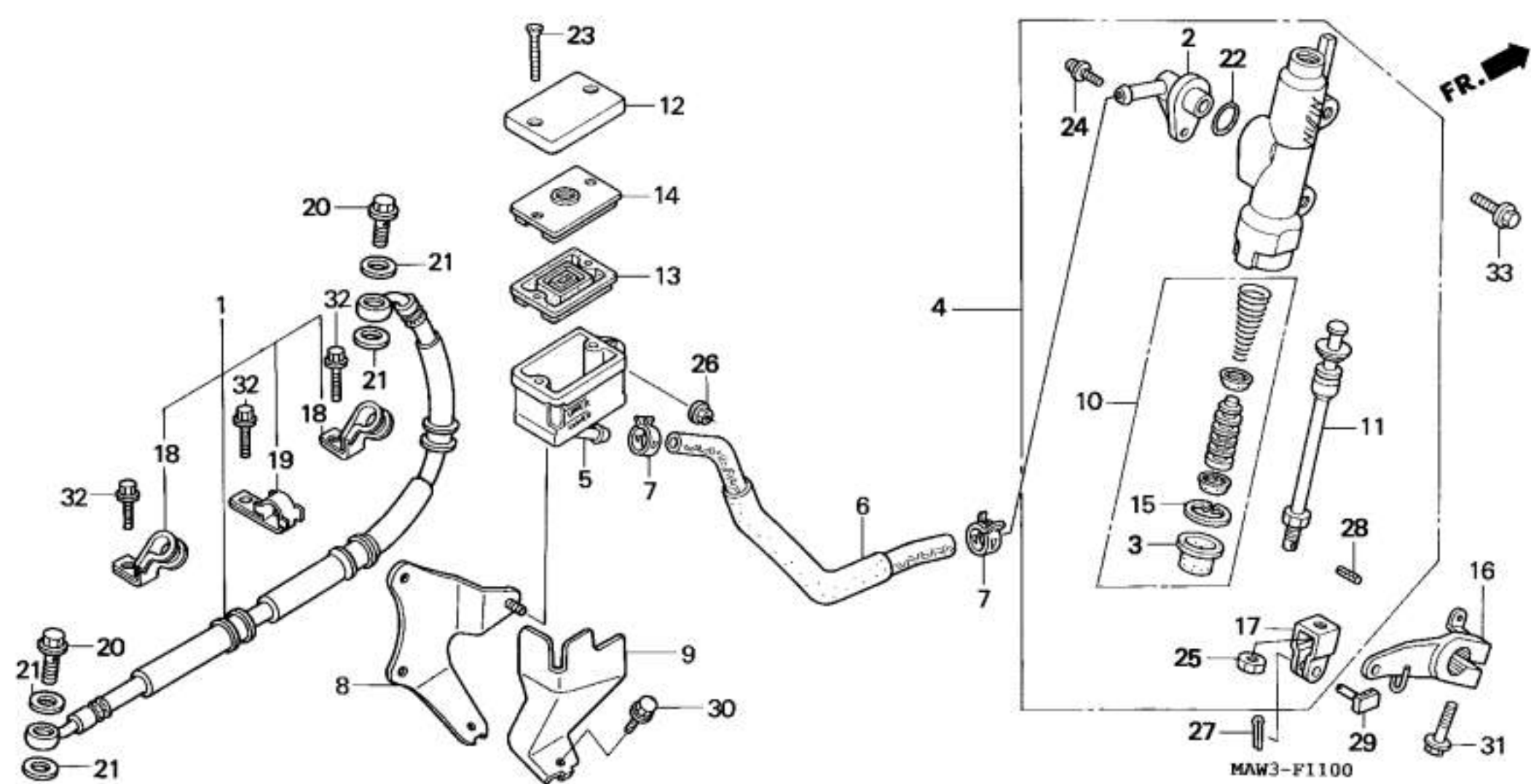


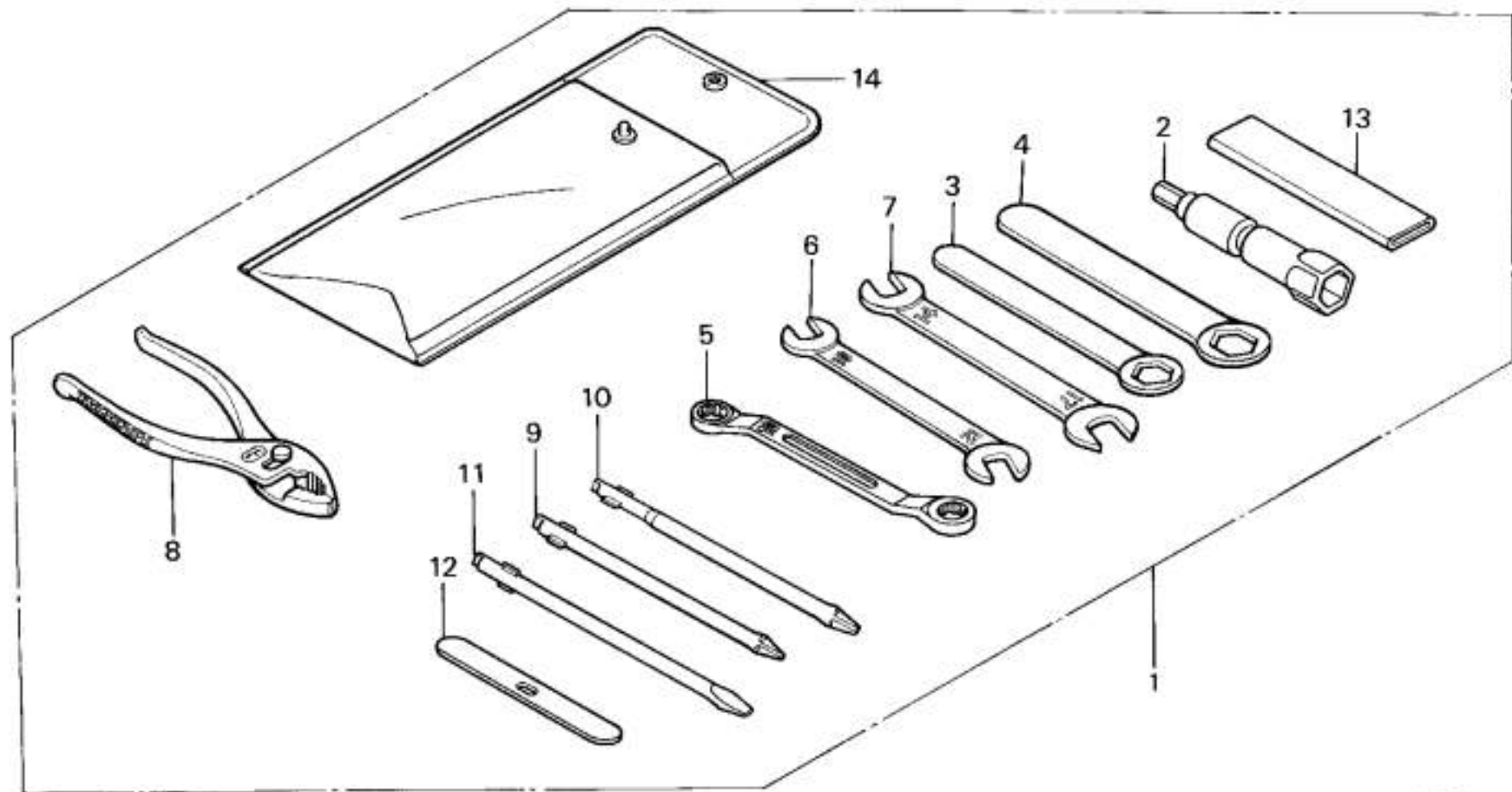
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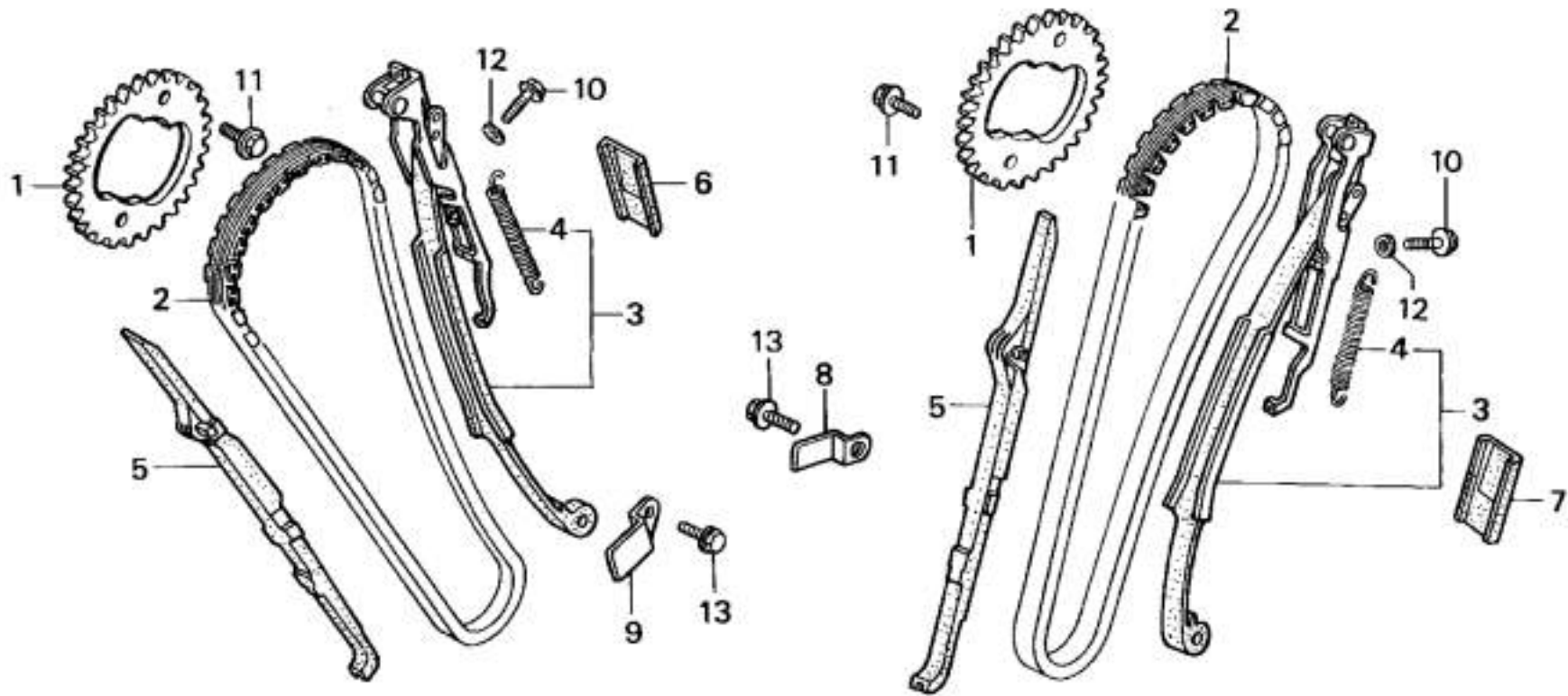
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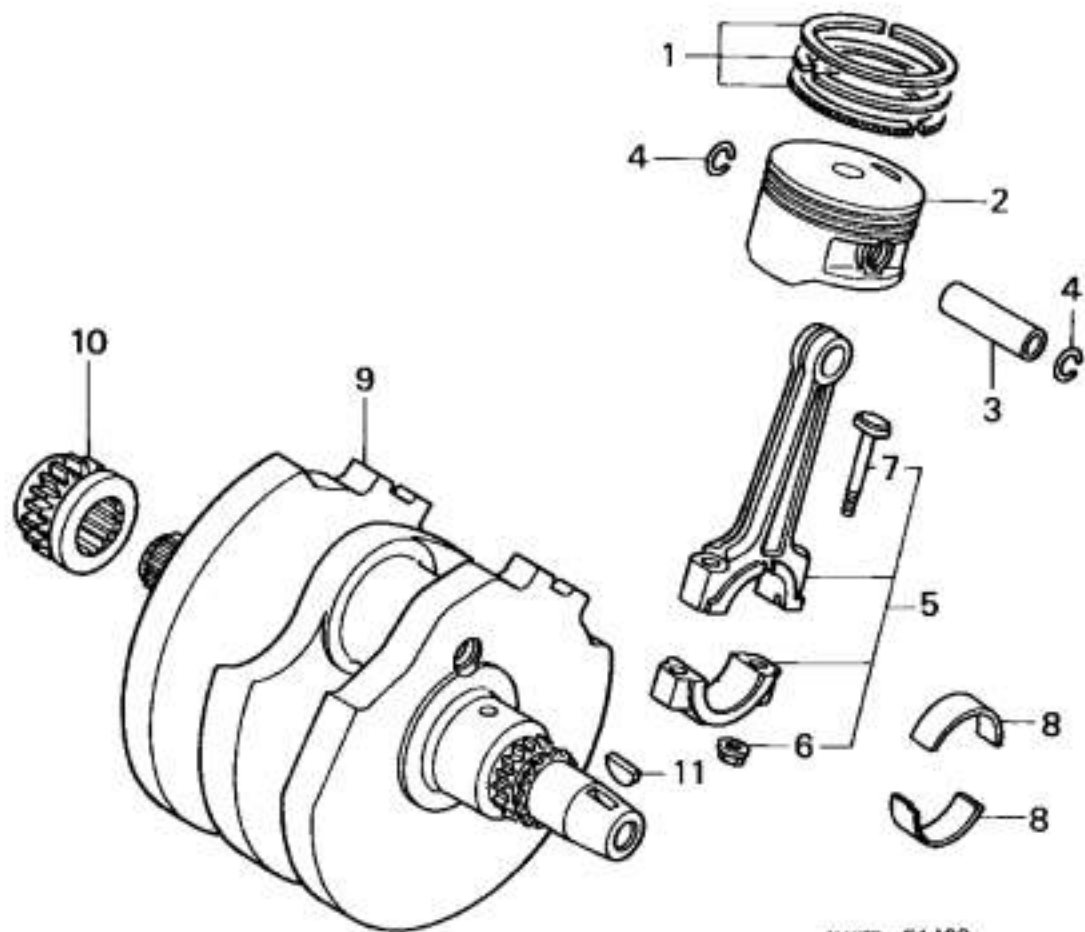
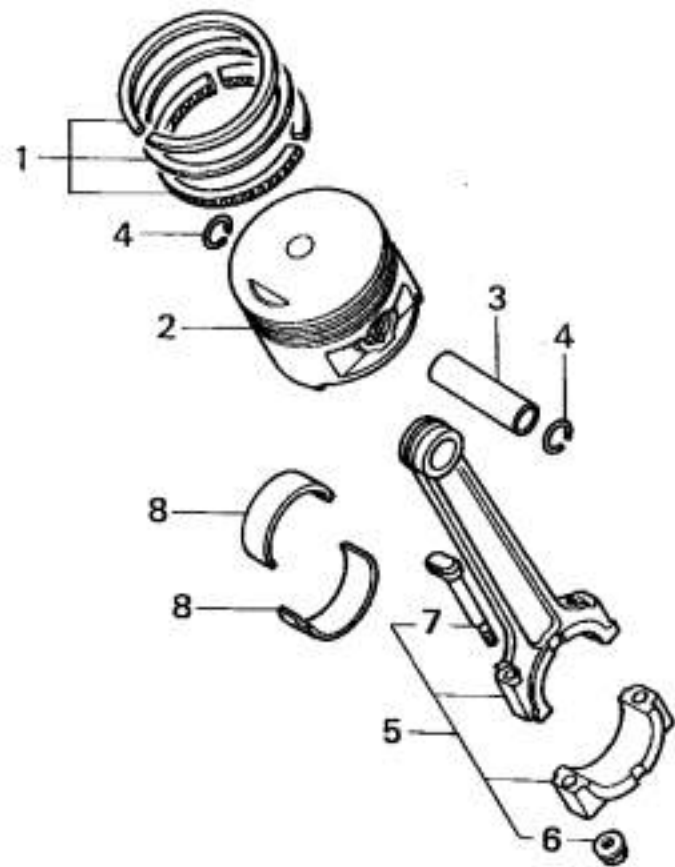


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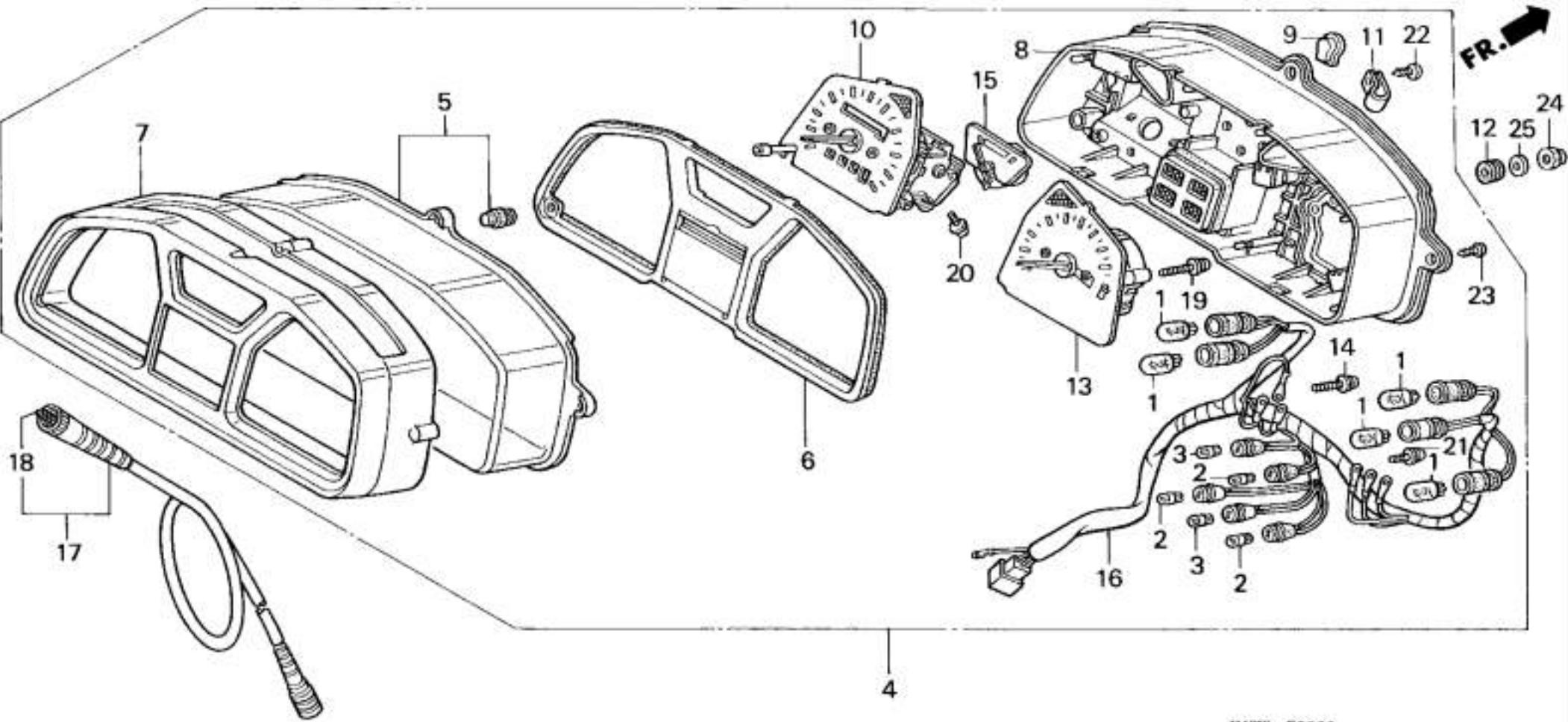




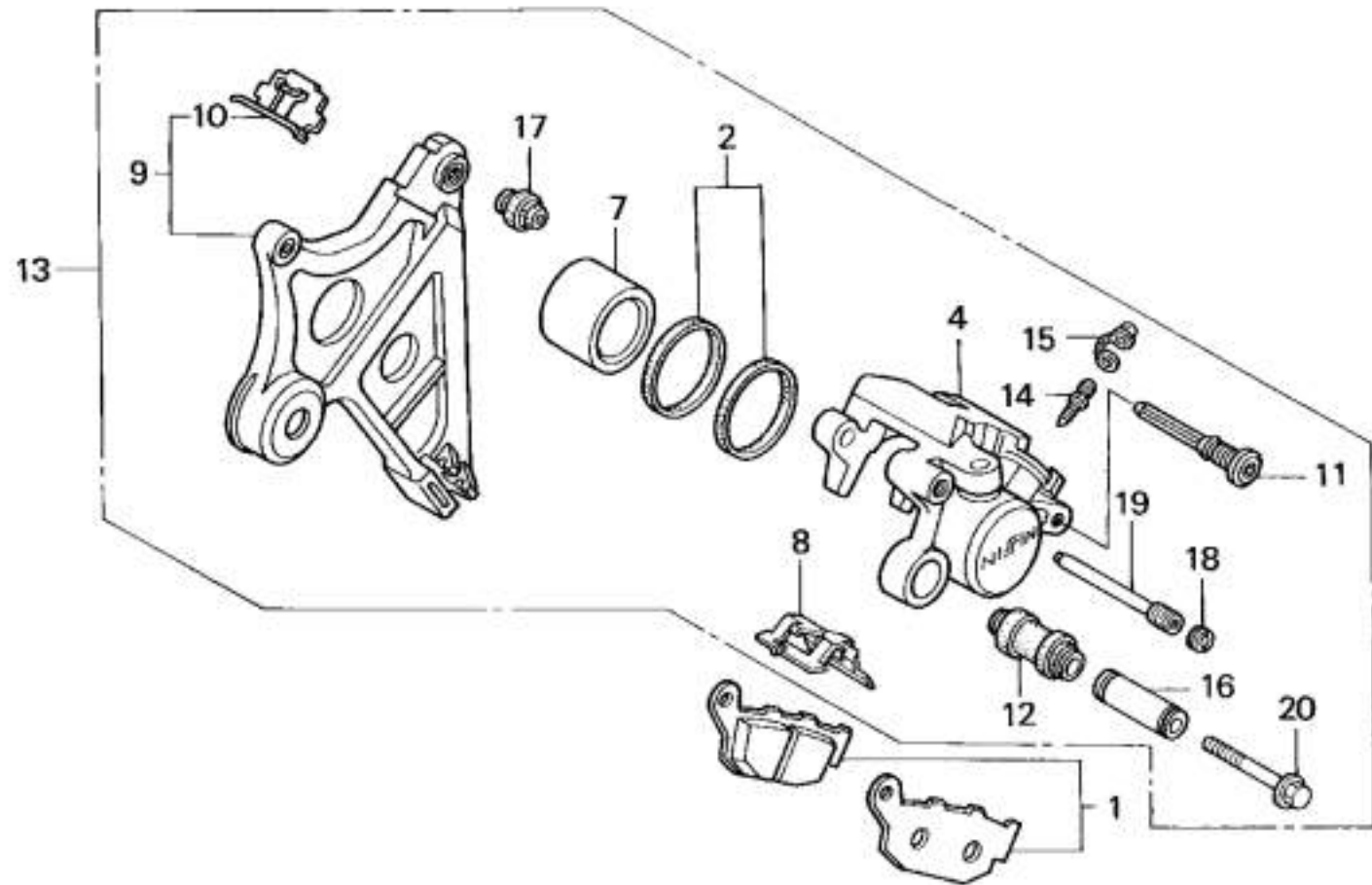
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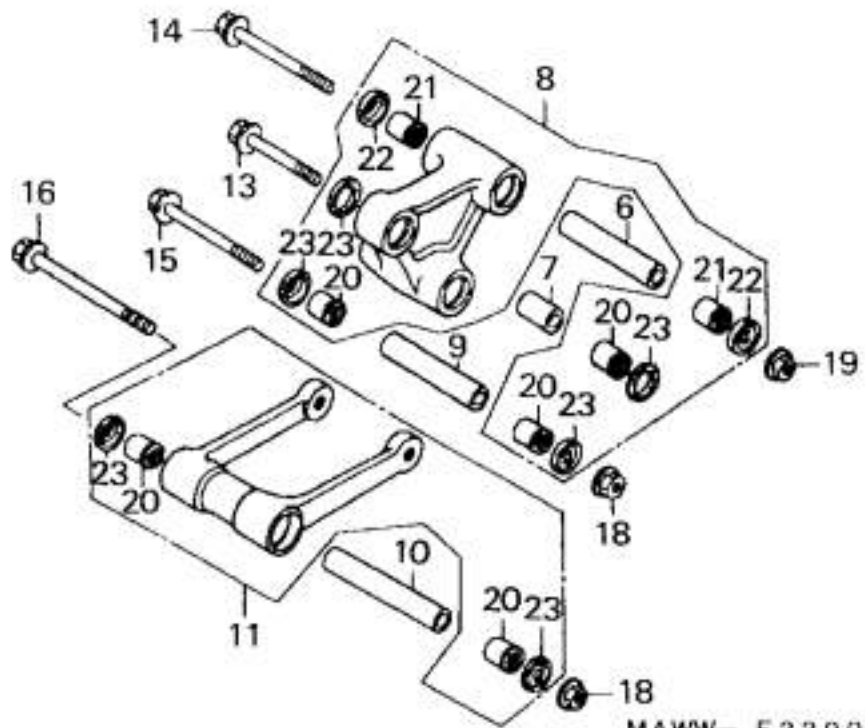
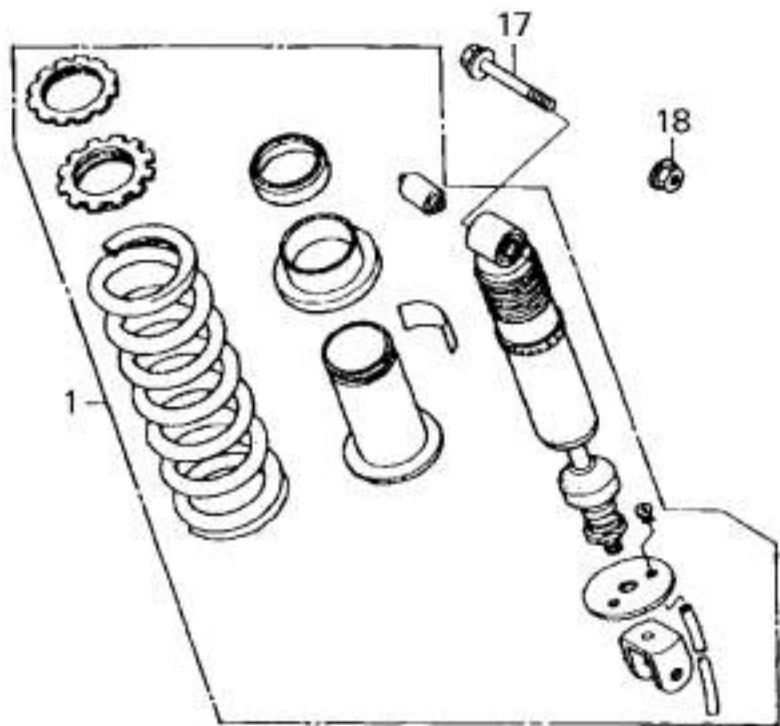
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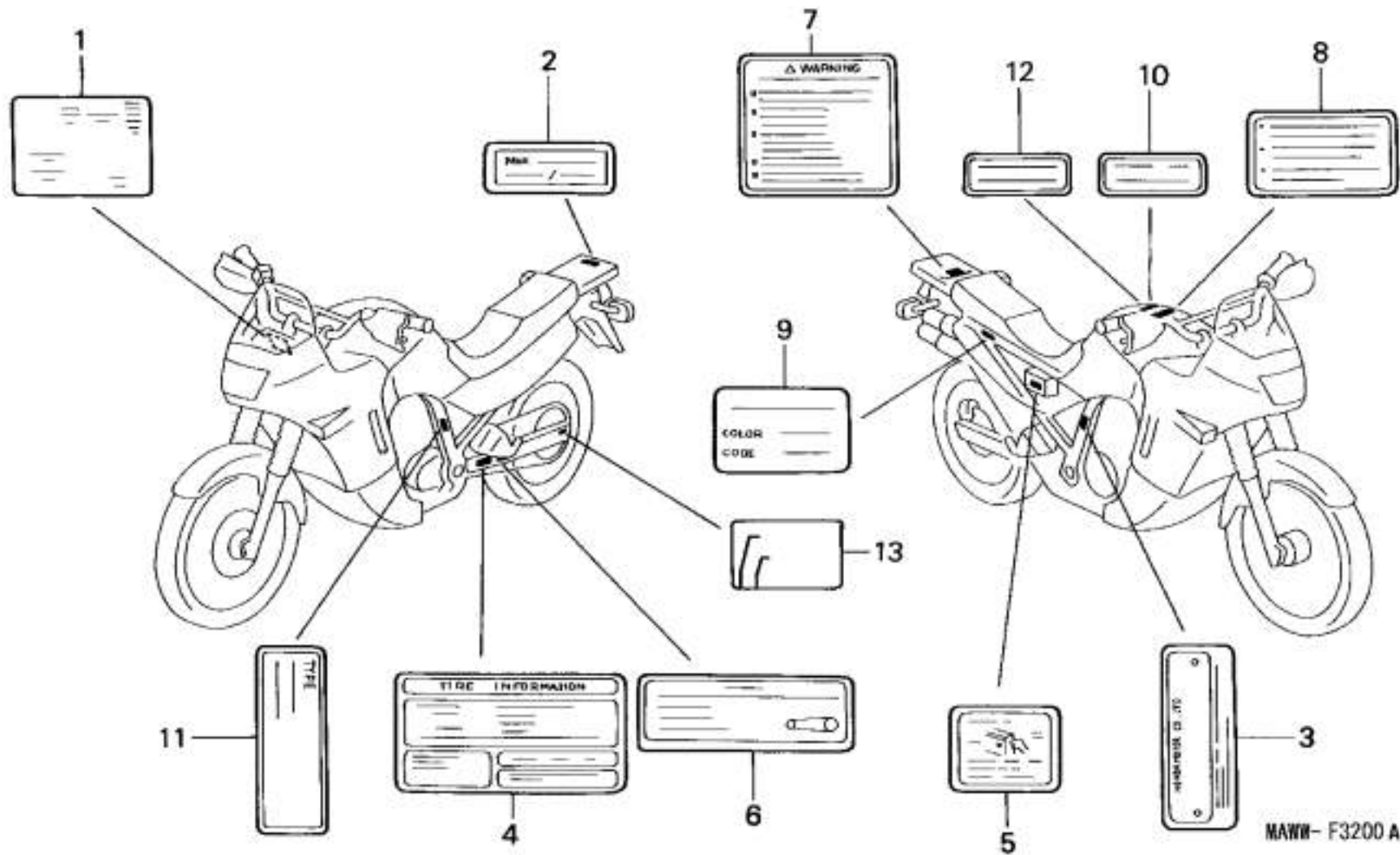
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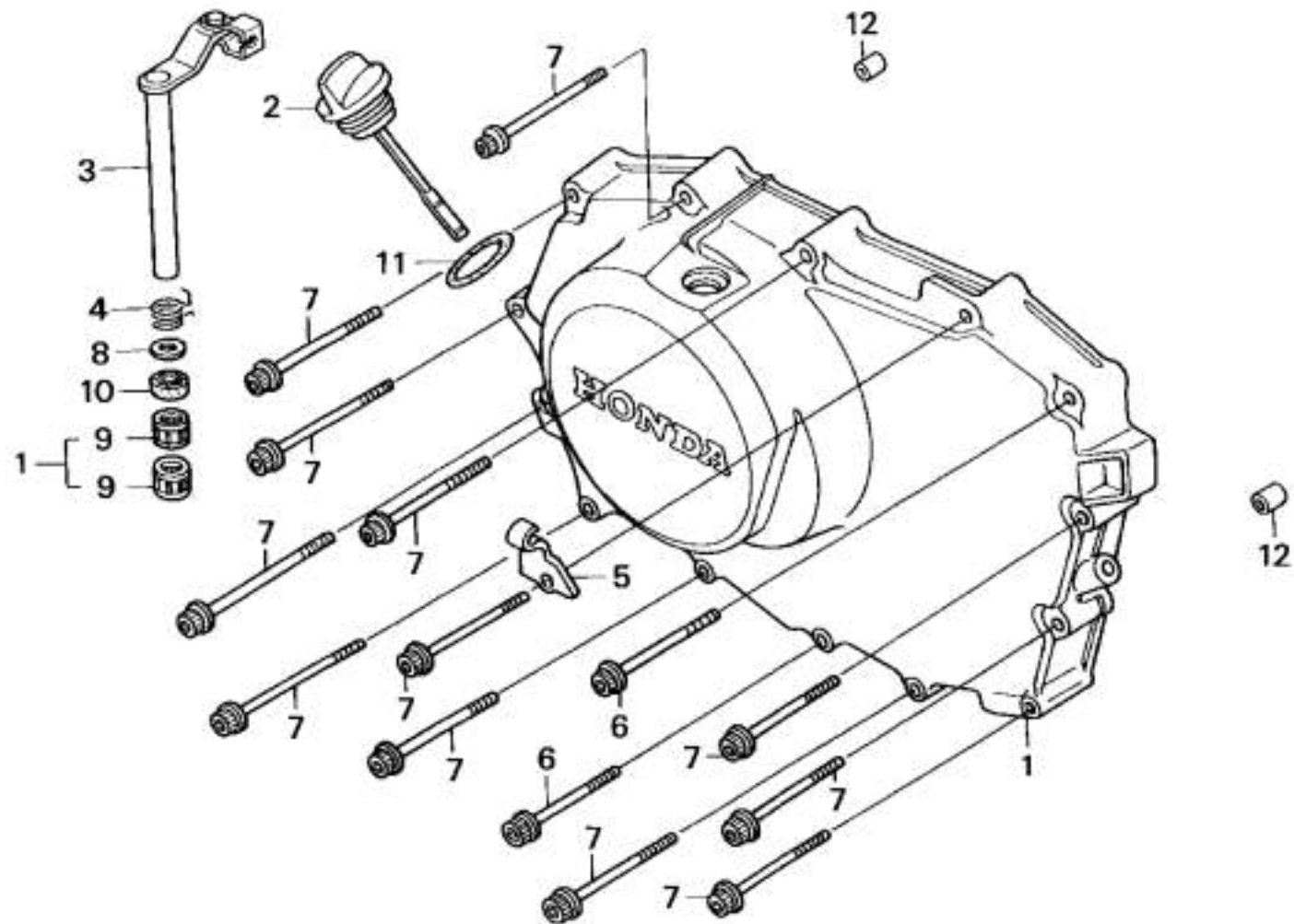


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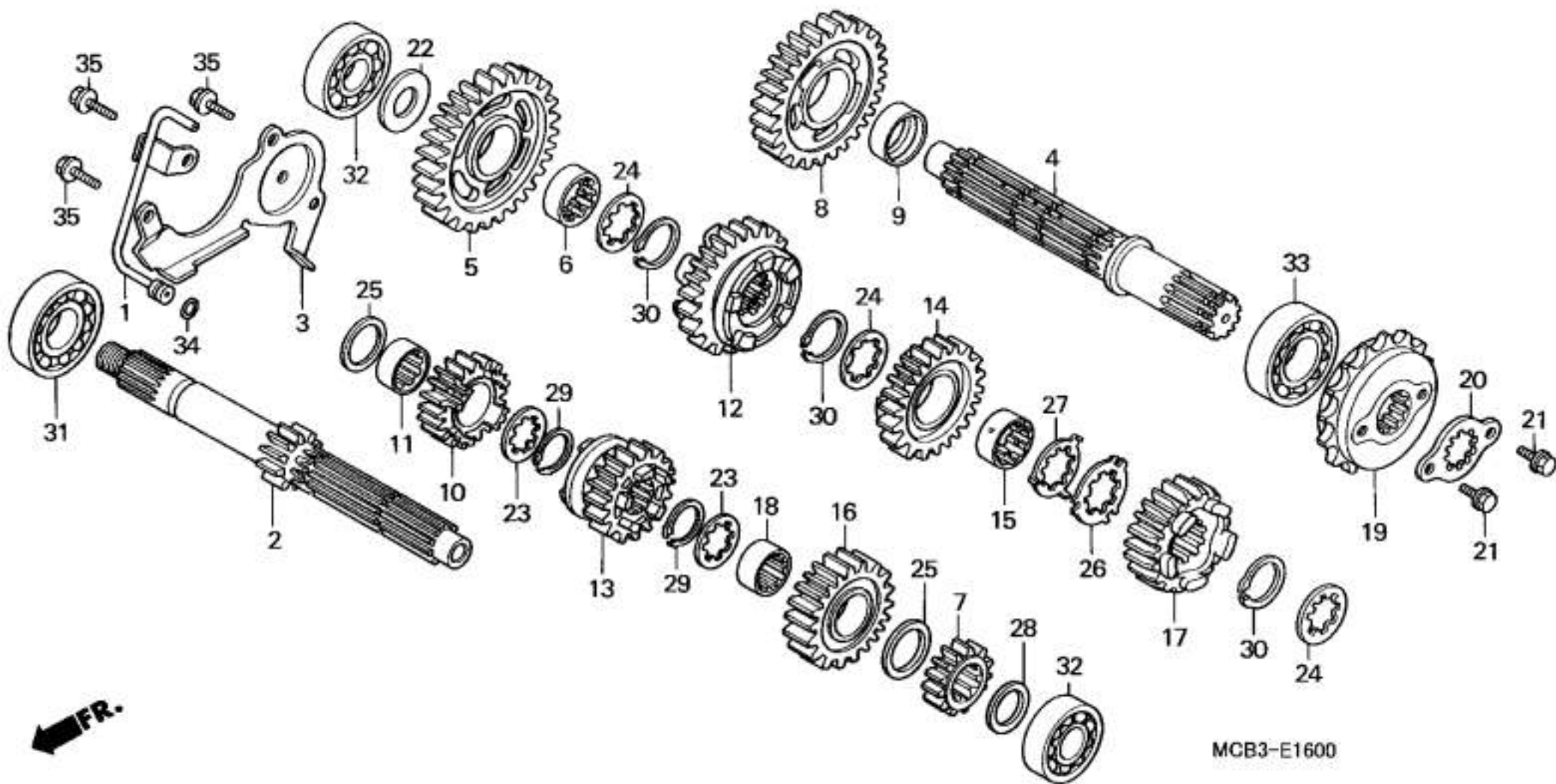
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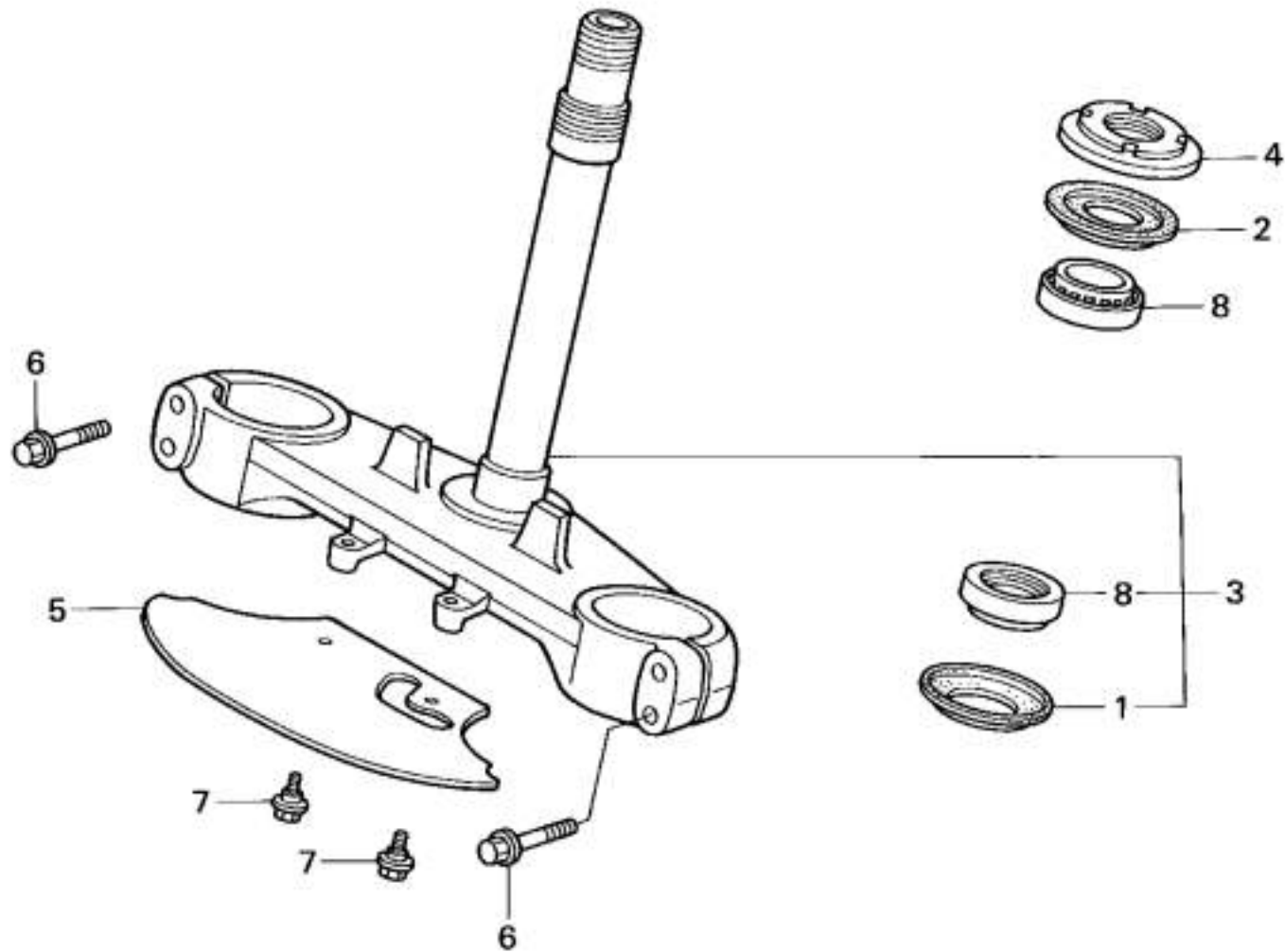
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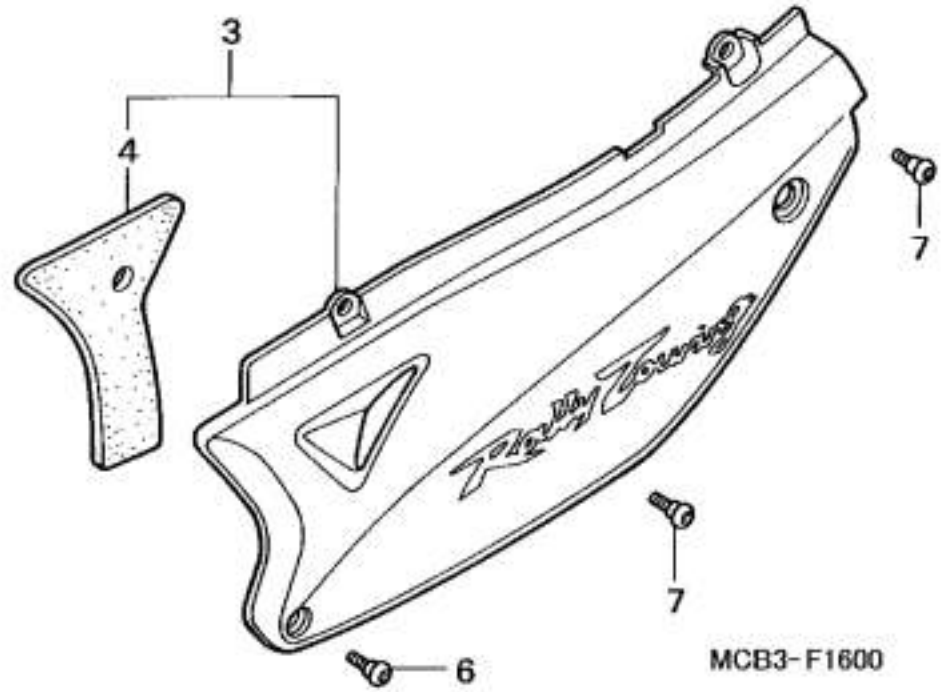
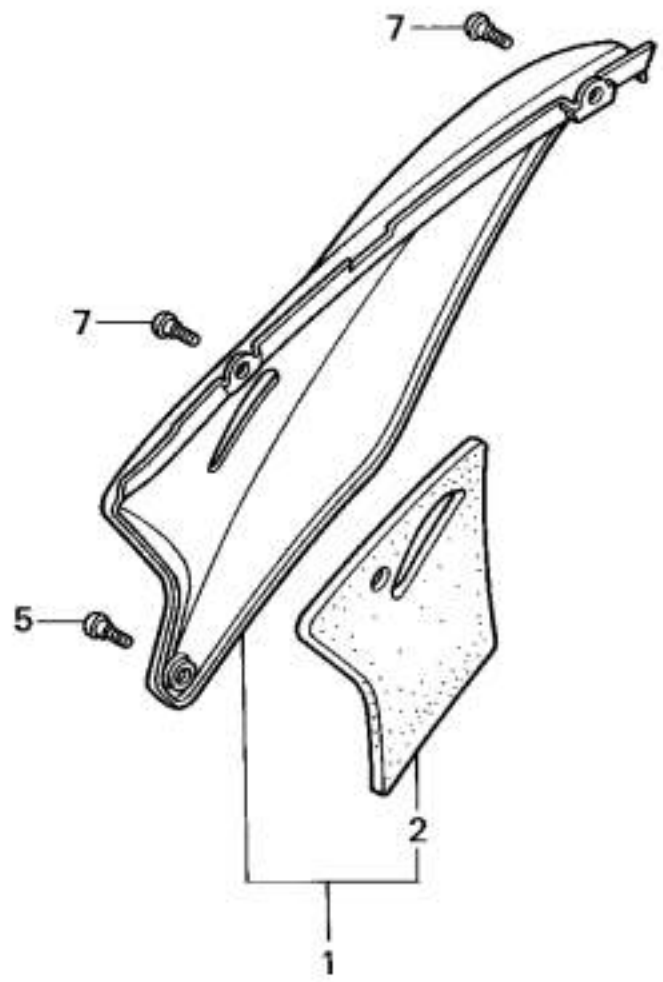
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MCB3-E1600



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MCB3-F1600

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