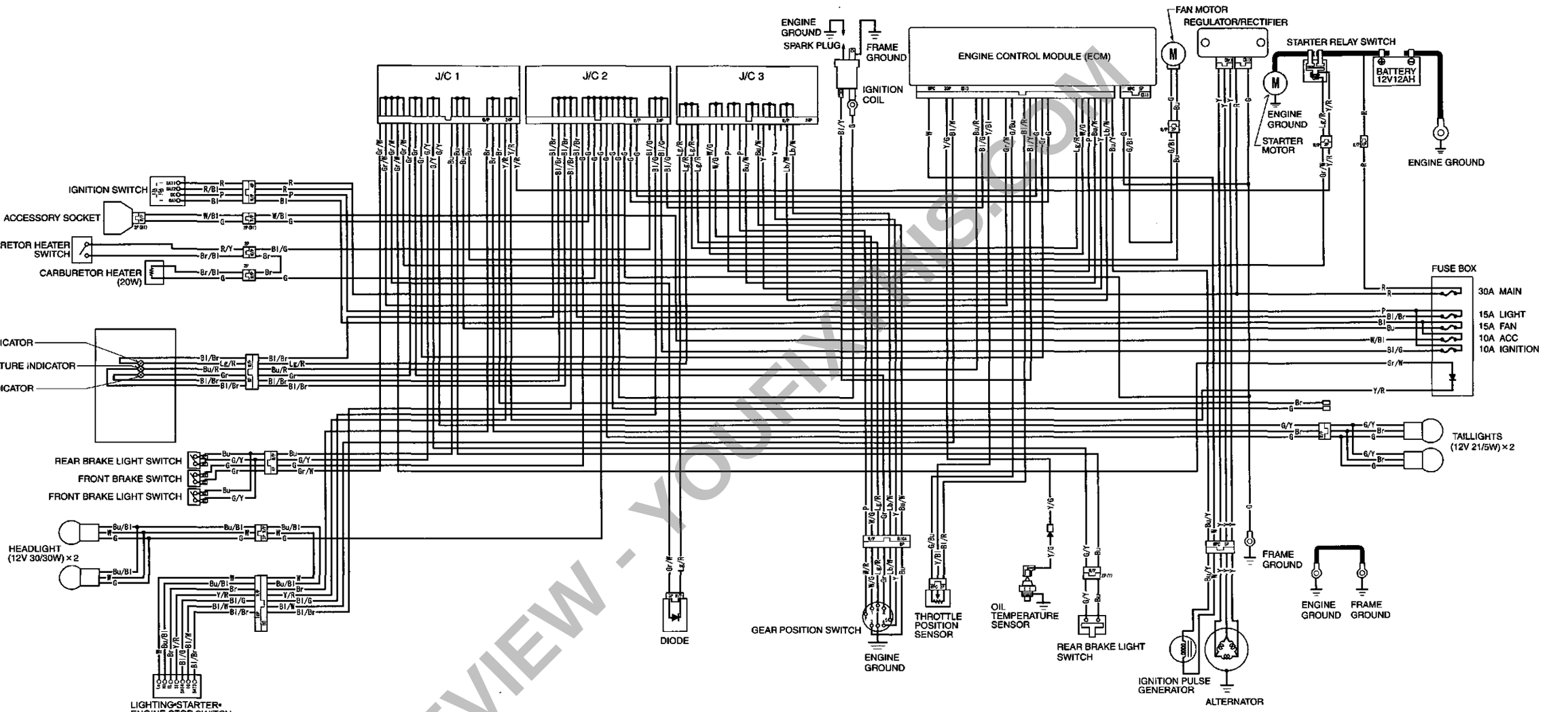
A/CM-TYPE TM MODEL



SWITCH CONTINUITY

IGNITION SWITCH

	BAT2	DC	BAT1	BAT
ON	○	○	○	○
OFF				
COLOR	R/Bl	P	R	Bl

LIGHTING SWITCH

	BAT3	TL	(HL)
ON	○	○	○
OFF			
COLOR	Bl	Br	

DIMMER SWITCH

	(HL)	Lo	Hi
Lo	○	○	
(N)	○	○	○
Hi	○		○
COLOR		W	Bu/Bl

ENGINE STOP SWITCH

	BAT4	IG
OFF		
RUN	○	○
OFF		
COLOR	Bl/G	Bl/W

STARTER SWITCH

	IG	ST
FREE		
PUSH	○	○
COLOR	Bl/W	Y/R

Bl : BLACK
Y : YELLOW
Bu : BLUE
G : GREEN
R : RED
W : WHITE
Br : BROWN
O : ORANGE
Lb : LIGHT BLUE
Lg : LIGHT GREEN
P : PINK
Gr : GRAY

0030Z-HP0-6700

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STANDARD TORQUE VALUES

FASTENER TYPE	TORQUE N·m (kgf·m, lbf·ft)	FASTENER TYPE	TORQUE N·m (kgf·m, lbf·ft)
5 mm bolt and nut	5 (0.5, 3.6)	5 mm screw	4 (0.4, 2.9)
6 mm bolt and nut	10 (1.0, 7)	6 mm screw	9 (0.9, 6.5)
8 mm bolt and nut	22 (2.2, 16)	6 mm flange bolt (8 mm head, small flange)	10 (1.0, 7)
10 mm bolt and nut	34 (3.5, 25)		
12 mm bolt and nut	54 (5.5, 40)	6 mm flange bolt (8 mm head, large flange)	12 (1.2, 9)
		6 mm flange bolt (10 mm head) and nut	12 (1.2, 9)
		8 mm flange bolt and nut	26 (2.7, 20)
		10 mm flange bolt and nut	39 (4.0, 29)

ENGINE & FRAME TORQUE VALUES

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

NOTE:

1. Apply locking agent to the threads.
2. Apply engine oil to the threads and seating surface.
3. Apply grease to the threads and seating surface.
4. ALOC bolt: replace with a new one.
5. Lock nut: replace with a new one.
6. Castle nut: tighten to the specified torque and further tighten until its grooves align with the cotter pin hole.
7. Stake.
8. Left hand threads.

ENGINE

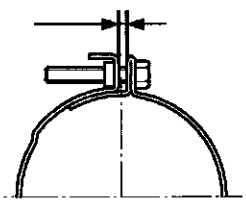
MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Spark plug	1	14	22 (2.2, 16)	
Valve adjusting lock nut	2	6	17 (1.7, 13)	
Valve adjusting hole cap	2	34	12 (1.2, 9)	
Timing hole cap	1	14	10 (1.0, 7)	
Engine oil drain bolt	1	12	25 (2.5, 18)	
Engine oil filter cover bolt	3	6	10 (1.0, 7)	
Clutch adjusting screw lock nut	1	8	22 (2.2, 16)	

LUBRICATION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Relief valve cap	1	14	19 (1.9, 14)	NOTE 1

FUEL SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Carburetor insulator band screw	1	5	4 (0.4, 3.0)	
1.5 – 3.0 mm (0.06 – 0.12 in) 				
Throttle position sensor spacer screw	2	5	3.4 (0.35, 2.5)	

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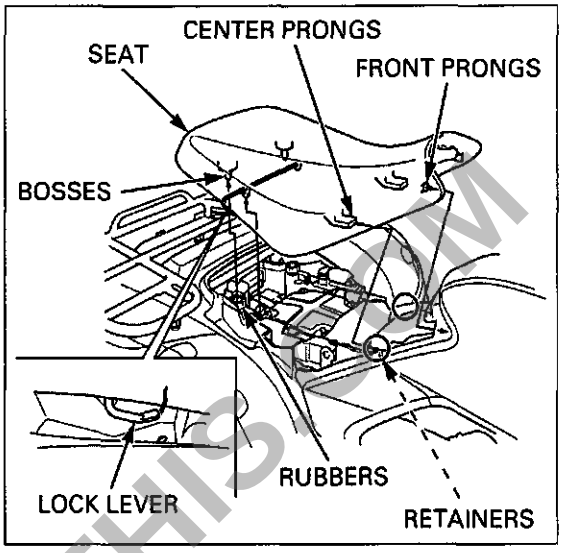
SEAT

REMOVAL

Unlock the seat by turning the release lever upward. Raise the rear of the seat, slide it rearward and remove it.

INSTALLATION

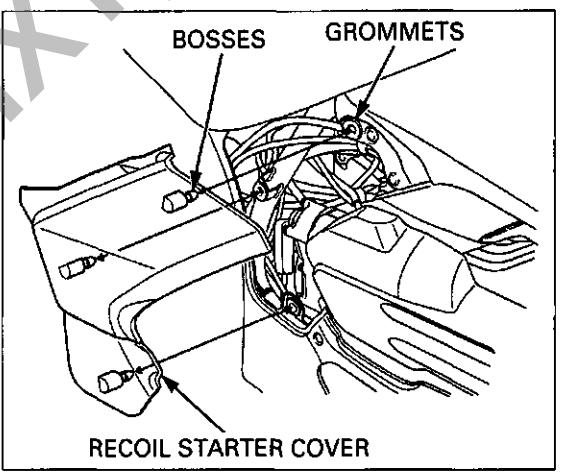
Install the seat by inserting the front prong under fuel tank and hooking the center prongs to the seat retainers of the frame.
Push the seat forward and align the mounting bosses with the mounting rubbers, then press down to lock it.



RECOIL STARTER COVER

Remove the recoil starter cover by releasing the three bosses from the grommets.

Install the recoil starter cover in the reverse order of removal.



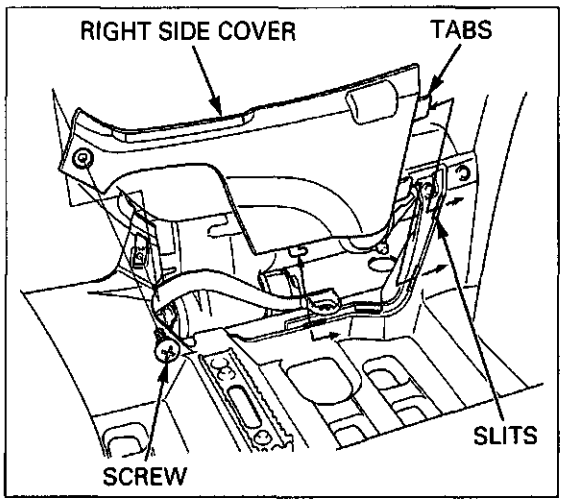
SIDE COVER

RIGHT SIDE COVER

Remove the recoil starter cover (page 3-4).

Remove the screw and the right side cover by releasing the three tabs from the slits.

Install the right side cover in the reverse order of removal.



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TROUBLESHOOTING

Engine cranks but won't start
- No fuel in tank
- No fuel to carburetor
  - Clogged fuel strainer
  - Clogged fuel line
  - Clogged fuel tank breather hose
- Too much fuel getting to the engine
  - Clogged air cleaner
  - Flooded carburetor
- Intake air leak
- Contaminated/deteriorated fuel
  - Clogged jets
- Clogged starting enrichment (SE) valve circuit
- Improper choke operation
- Improper throttle operation
- No spark at plug (faulty ignition system – See page 19-4)

Lean mixture
- Clogged fuel jets
- Faulty float valve
- Float level too low
- Restricted fuel line
- Clogged carburetor air vent hose
- Restricted fuel tank breather hose
- Intake air leak
- Faulty vacuum piston
- Faulty throttle valve

Rich mixture
- SE valve open
- Clogged air jets
- Faulty float valve
- Float level too high
- Dirty air cleaner
- Worn jet needle or needle jet
- Faulty vacuum piston

Engine stalls, hard to start, rough idling
- Restricted fuel line
- Fuel mixture too lean/rich
- Contaminated/deteriorated fuel
  - Clogged jets
- Intake air leak
- Misadjusted idle speed
- Misadjusted pilot screw
- Restricted fuel tank breather hose
- Clogged air cleaner
- Clogged slow circuit
- Clogged SE valve circuit
- Faulty ignition system (page 19-4)

Afterburn when engine braking is used
- Lean mixture in slow circuit
- Faulty air cut-off valve
- Faulty ignition system (page 19-4)

Backfiring or misfiring during acceleration
- Lean mixture
- Faulty ignition system (page 19-4)

Poor performance (driveability) and poor fuel economy
- Clogged fuel system
- Faulty ignition system (page 19-4)

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GENERAL SPECIFICATIONS

TRX500TM

ITEM		SPECIFICATIONS
DIMENSIONS	Overall length	2,109 mm (83.0 in)
	Overall width	1,188 mm (46.8 in)
	Overall height	1,169 mm (46.0 in)
	Wheelbase	1,292 mm (50.9 in)
	Front tread	922 mm (36.3 in)
	Rear tread	925 mm (36.4 in)
	Seat height	860 mm (33.9 in)
	Footpeg height	349 mm (13.7 in)
	Ground clearance	190 mm (7.5 in)
	Dry weight	253 kg (558 lbs)
	Curb weight	265 kg (584 lbs)
	Maximum weight capacity	220 kg (485 lbs)
FRAME	Frame type	Double cradle
	Front suspension	Double wishbone
	Front wheel travel	170 mm (6.7 in)
	Front damper	Double tube
	Rear suspension	Swingarm
	Rear wheel travel	170 mm (6.7 in)
	Rear damper	Double tube
	Front tire size	AT25 x 8-12 ★★
	Rear tire size	AT25 x 10-12 ★★
	Front rim size	12 x 6.0 AT
	Rear rim size	12 x 7.5 AT
	Front tire brand	KT181 (Dunlop)
	Rear tire brand	KT185 (Dunlop)
	Front brake	Hydraulic disc brake
	Rear brake	Mechanical drum brake
	Caster angle	5°
	Trail length	17 mm (11/16 in)
	Camber angle	0°
	Fuel tank capacity	15.8 liters (4.17 US gal, 3.48 Imp gal)
	Fuel tank reserve capacity	3.3 liters (0.87 US gal, 0.73 Imp gal)
ENGINE	Cylinder arrangement	Single cylinder, longitudinally installed
	Bore and stroke	92.0 x 71.5 mm (3.62 x 2.81 in)
	Displacement	475.3 cm³ (28.99 cu-in)
	Compression ratio	8.3 : 1
	Valve train	OHV
	Intake valve opens	6° BTDC (at 1 mm lift)
	Intake valve closes	44° ABDC (at 1 mm lift)
	Exhaust valve opens	42° BBDC (at 1 mm lift)
	Exhaust valve closes	4° ATDC (at 1 mm lift)
	Lubrication system	Forced pressure and wet sump
	Oil pump type	Trochoid
	Cooling system	Air cooled (with cooling fan and oil cooler)
	Air filtration	Oiled double urethane foam
	Engine dry weight	55.2 kg (121.7 lbs)
CARBURETOR	Carburetor type	Constant Vacuum (VE type)
	Throttle bore	36 mm (1.42 in)

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MAINTENANCE SCHEDULE

TRX500TM model:

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.

	ITEMS	FREQUENCY / WHICHEVER COMES FIRST ⇩	⇨	INITIAL MAINTE-NANCE	REGULAR MAINTENANCE INTERVAL		REFER TO PAGE
			mi	100	600	1,200	
			km	150	1,000	2,000	
			HOURS	20	100	200	
*	FUEL LINE					I	4-5
*	THROTTLE OPERATION					I	4-5
*	CARBURETOR CHOKE					I	4-6
	AIR CLEANER	NOTE 1			C	C	4-7
	AIR CLEANER HOUSING DRAIN HOSE	NOTE 2			I	I	4-9
	SPARK PLUG				I	I	4-9
*	VALVE CLEARANCE			I	I	I	4-10
	ENGINE OIL			R	R	R	4-11
	ENGINE OIL FILTER			R	R	R	4-13
*	ENGINE IDLE SPEED			I	I	I	4-13
	REAR FINAL GEAR CASE OIL				(R: Every 2 years)	I	4-14
*	BRAKE FLUID	NOTE 3			I	I	4-16
*	BRAKE SHOES WEAR	NOTE 1				I	4-17
*	BRAKE PADS WEAR	NOTE 1, 2				I	4-17
*	BRAKE LIGHT SWITCH			I	I	I	4-17
	BRAKE SYSTEM			I	I	I	4-18
*	REVERSE LOCK SYSTEM			I	I	I	4-19
	SKID PLATE, ENGINE GUARD				I	I	4-19
*	CLUTCH SYSTEM			I	I	I	4-19
*	SUSPENSION				I	I	4-20
*	SPARK ARRESTER				C	C	4-20
*	NUTS, BOLTS, FASTENERS			I		I	4-21
**	WHEELS/TIRES			I	I	I	4-21
**	STEERING SHAFT HOLDER BEARING					I	4-21
**	STEERING SYSTEM					I	4-22

* Should be serviced by your Honda dealer, unless the owner has proper tools and service data and is mechanically qualified.

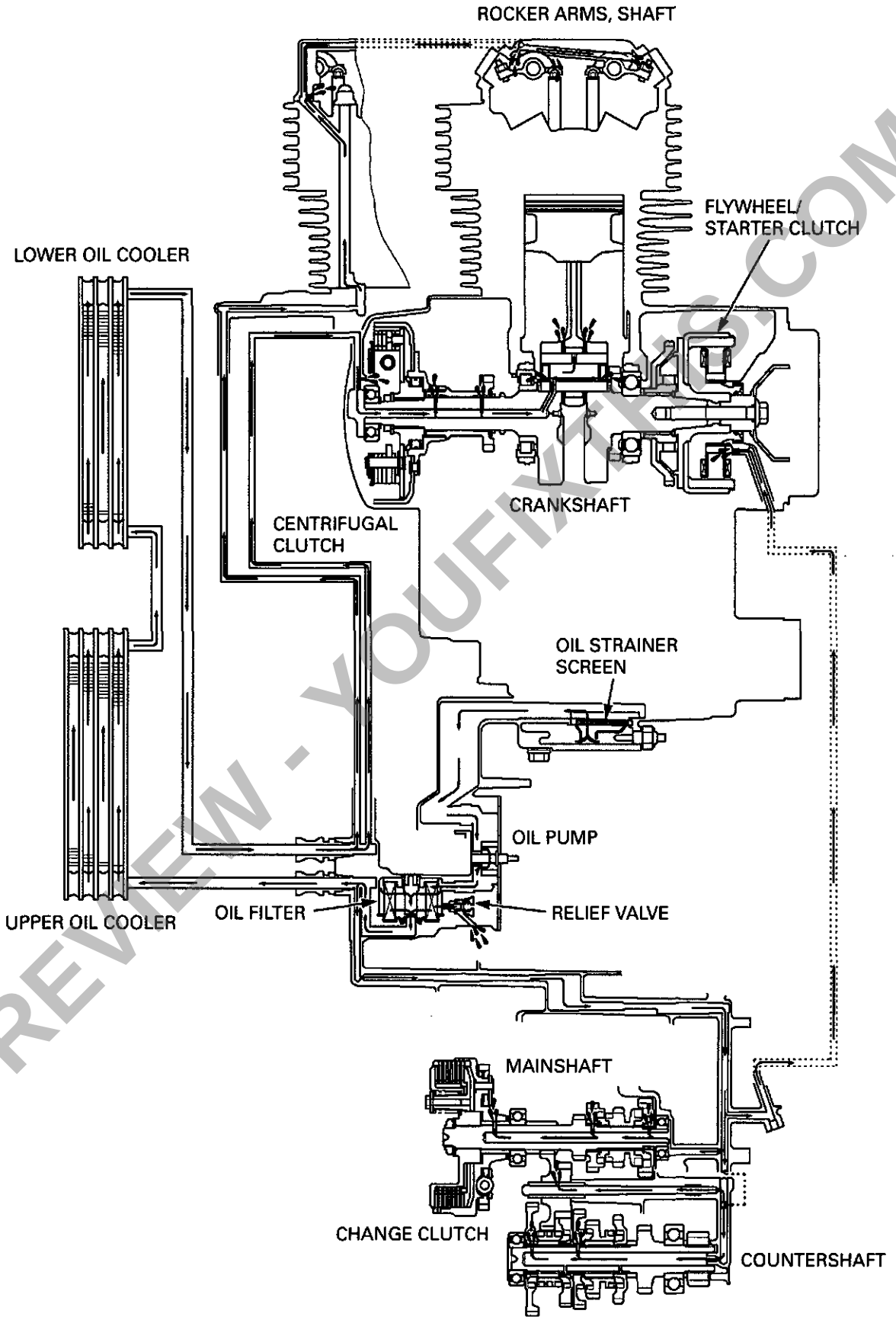
** In the interest of safety, we recommend these items be serviced only by your Honda dealer.

NOTES:
1. Service more frequently when riding in dusty areas, sand or snow.
2. Service more frequency after riding in very wet or muddy conditions.
3. Replace every 2 years. Replacement requires mechanical skill.

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LUBRICATION SYSTEM DIAGRAM



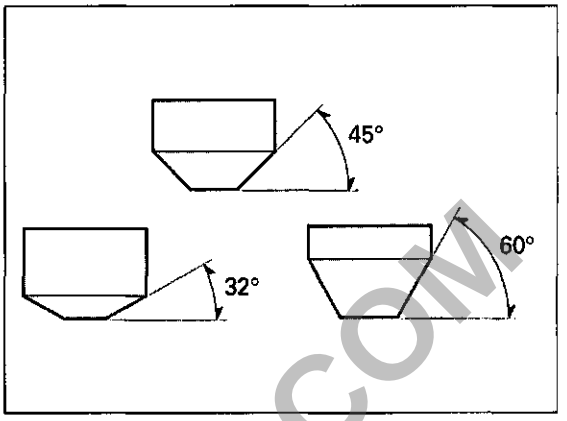
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REFACING

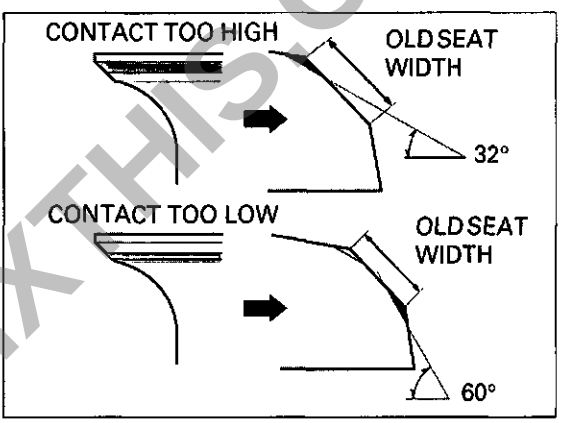
Follow the refacing manufacturer's operating instructions.

Valve seat cutters/grinders or equivalent valve seat refacing equipment are recommended to correct worn valve seats.



If the contact area is too high on the valve, the seat must be lowered using a 32° flat cutter.

If the contact area is too low on the valve, the seat must be raised using a 60° interior cutter.



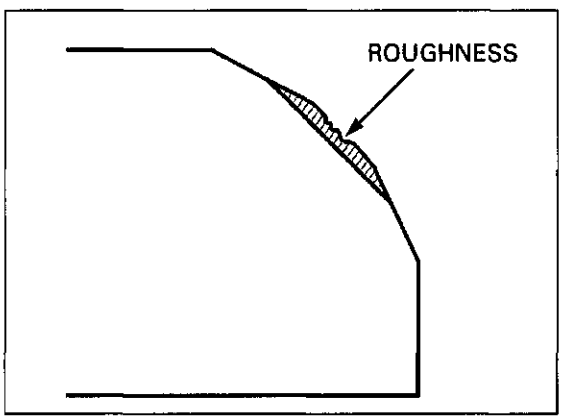
Reface the seat with a 45° cutter whenever a valve guide is replaced.

Using a 45° seat cutter, remove any roughness or irregularities from the seat.

TOOLS:

Seat cutter, 40 mm (45° IN)	**07780-0010500**
Seat cutter, 33 mm (45° EX)	**07780-0010800**
Cutter holder, 6.0 mm	**07VMH-MBB0100**

or equivalent commercially available in U.S.A.

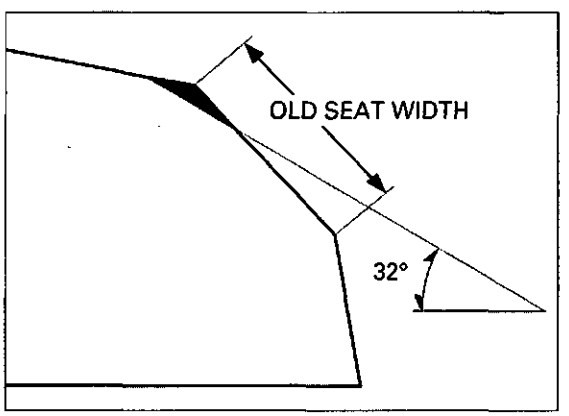


Using a 32° flat cutter, remove 1/4 of the existing valve seat material.

TOOLS:

Flat cutter, 38.5 mm (30° IN)	**07780-0012400**
Seat cutter, 33 mm (30° EX)	**07780-0012900**
Cutter holder, 6.0 mm	**07VMH-MBB0100**

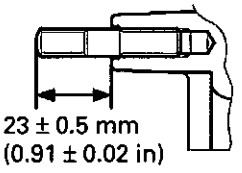
or equivalent commercially available in U.S.A.



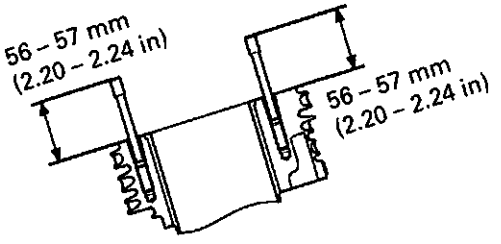
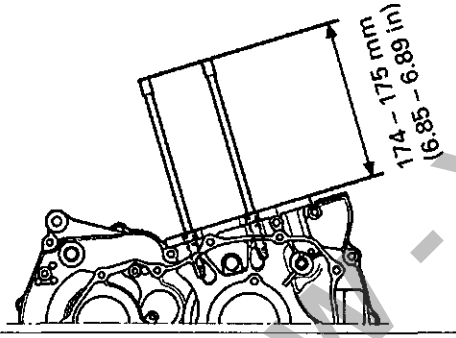
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CYLINDER HEAD/VALVE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cylinder head cap nut	6	10	39 (4.0, 29)	NOTE 2
Cam sprocket bolt	2	7	20 (2.0, 15)	NOTE 1
Cam chain tensioner pivot bolt	1	6	12 (1.2, 9)	NOTE 1
Exhaust pipe stud bolt	2	8	6 (0.6, 4.4)	
				

CYLINDER/PISTON

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cylinder stud bolt	2	10	12 (1.2, 9)	
				
Cylinder stud bolt	4	10	12 (1.2, 9)	
				

CLUTCH/GEARSHIFT LINKAGE:

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Clutch spring bolt	4	6	12 (1.2, 9)	
Centrifugal clutch lock nut	1	20	118 (12.0, 87)	NOTE 2, 7
Change clutch lock nut	1	18	108 (11.0, 80)	NOTE 2, 7
Shift drum stopper arm pivot bolt	1	6	12 (1.2, 9)	NOTE 1
Gearshift cam bolt	1	6	16 (1.6, 12)	NOTE 1
Gearshift spindle return spring pin	1	8	22 (2.2, 16)	NOTE 1

ALTERNATOR/STARTER CLUTCH:

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Starter clutch bolt	6	8	30 (3.1, 22)	NOTE 1
Recoil starter driven pulley bolt	1	12	108 (11.0, 80)	NOTE 2
Alternator stator bolt	4	6	10 (1.0, 7)	
Ignition pulse generator bolt	2	5	6 (0.6, 4.4)	NOTE 1

CRANKCASE/TRANSMISSION/CRANKSHAFT/BALANCER:

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Secondary gearshift spindle stopper bolt	1	6	12 (1.2, 9)	NOTE 1

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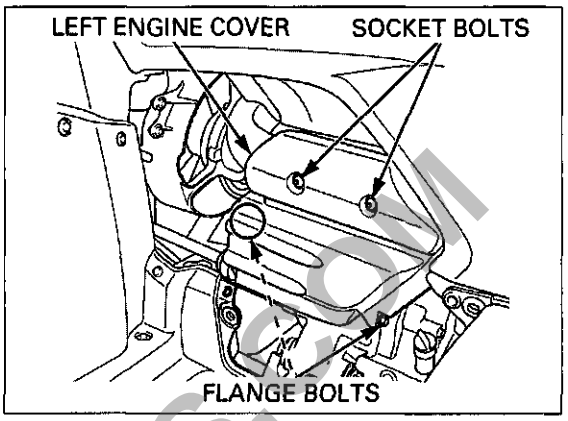
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EXHAUST SYSTEM

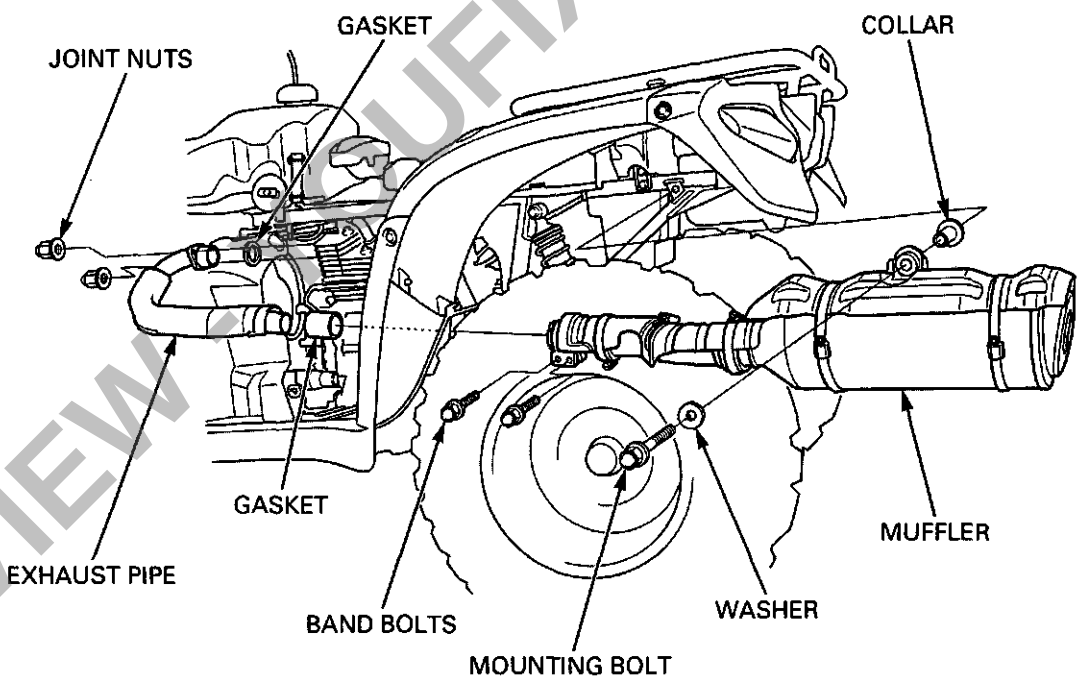
REMOVAL

Remove the following:

- left side cover (page 3-5)
- left engine air guide (page 3-12)
- two socket bolts, flange bolts and left engine cover



Loosen the muffler band bolts.
Remove the exhaust pipe joint nuts, exhaust pipe and gasket.
Remove the muffler gasket.
Remove the muffler mounting bolt, washer, collar and the muffler.



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TROUBLESHOOTING

- Engine top-end problems usually affect engine performance. These problems can be diagnosed by a compression test, or by tracing top-end noise with a sounding rod or stethoscope.
- If the performance is poor at low speeds, check for a white smoke in the crankcase breather hose. If the hose is smoky, check for seized piston ring (page 9-2).

Compression too low, hard starting or poor performance at low speed

- Valves
  - Incorrect valve adjustment
  - Burned or bent valves
  - Incorrect valve timing
  - Broken valve spring
  - Uneven valve seating
  - Valve stuck open
- Cylinder head
  - Leaking or damaged cylinder head gasket
  - Warped or cracked cylinder head
  - Loose spark plug
- Cylinder/piston problem (page 9-3)

Compression too high

- Excessive carbon build-up on piston head or combustion chamber
- Worn or damaged decompressor system

Excessive smoke

- Worn valve stem or valve guide
- Damaged stem seal
- Cylinder/piston problem (page 9-3)

Excessive noise

- Incorrect valve clearance
- Sticking valve or broken valve spring
- Excessively worn valve seat
- Worn or damaged camshaft
- Worn rocker arm and/or shaft
- Worn rocker arm follower or valve stem end
- Worn or damaged push rod and/or cam follower
- Worn cam chain
- Worn or damaged cam chain tensioner
- Worn cam sprocket teeth
- Cylinder/piston problem (page 9-3)

Rough idle

- Low cylinder compression

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ITEM		SPECIFICATIONS
DRIVE TRAIN	Clutch system	Centrifugal and multi-plate, wet
	Clutch operation system	Automatic
	Transmission	Constant mesh, 5-speeds with reverse
	Primary reduction	2.103 (61/29)
	Secondary reduction	1.818 (40/22)
	Final reduction	3.153 (41/13)
	Gear ratio 1st	4.231 (55/13)
	2nd	2.389 (43/18)
	3rd	1.609 (37/23)
	4th	1.179(33/28)
	5th	0.848 (28/33)
	Reverse	5.600 (28/15 x 39/13)
	Gearshift pattern	R – N – 1 – 2 – 3 – 4 – 5
		Left foot operated return system
ELECTRICAL	Ignition system	DC-CDI
	Starting system	Electric starter motor and emergency recoil starter
	Charging system	Triple phase output alternator
	Regulator/rectifier	FET shorted, triple phase full wave rectification
	Lighting system	Battery

TRX500FM/FE

ITEM		SPECIFICATIONS
DIMENSIONS	Overall length	2,109 mm (83.0 in)
	Overall width	1,188 mm (46.8 in)
	Overall height	1,181 mm (46.5 in)
	Wheelbase	1,287 mm (50.7 in)
	Front tread	913 mm (35.9 in)
	Rear tread	925 mm (36.4 in)
	Seat height	860 mm (33.9 in)
	Footpeg height	349 mm (13.7 in)
	Ground clearance	190 mm (7.5 in)
	Dry weight	FM: 270 kg (595 lbs)
		FE: 271 kg (597 lbs)
	Curb weight	FM: 282 kg (622 lbs)
		FE: 284 kg (626 lbs)
	Maximum weight capacity	220 kg (485 lbs)

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TRX500FM/FE models:

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.

	ITEMS	FREQUENCY WHICHEVER COMES FIRST ⇩	⇨	INITIAL MAINTE-NANCE	REGULAR MAINTENANCE INTERVAL		REFER TO PAGE
			mi	100	600	1,200	
			km	150	1,000	2,000	
			HOURS	20	100	200	
*	FUEL LINE					I	4-5
*	THROTTLE OPERATION					I	4-5
*	CARBURETOR CHOKE					I	4-6
	AIR CLEANER	NOTE 1			C	C	4-7
	AIR CLEANER HOUSING DRAIN HOSE	NOTE 2			I	I	4-9
	SPARK PLUG				I	I	4-9
*	VALVE CLEARANCE			I	I	I	4-10
	ENGINE OIL			R	R	R	4-11
	ENGINE OIL FILTER			R	R	R	4-13
*	ENGINE IDLE SPEED			I	I	I	4-13
	DRIVE SHAFT BOOTS				I	I	4-14
	REAR FINAL GEAR CASE OIL AND DIFFERENTIAL OIL				(R: Every 2 years)	I	4-14
*	BRAKE FLUID	NOTE 3			I	I	4-16
*	BRAKE SHOES WEAR	NOTE 1				I	4-17
*	BRAKE PADS WEAR	NOTE 1, 2				I	4-17
*	BRAKE LIGHT SWITCH			I	I	I	4-17
	BRAKE SYSTEM			I	I	I	4-18
*	REVERSE LOCK SYSTEM			I	I	I	4-19
	SKID PLATE, ENGINE GUARD				I	I	4-19
*	CLUTCH SYSTEM			I	I	I	4-19
*	SUSPENSION				I	I	4-20
*	SPARK ARRESTER				C	C	4-20
*	NUTS, BOLTS, FASTENERS			I		I	4-21
**	WHEELS/TIRES			I	I	I	4-21
**	STEERING SHAFT HOLDER BEARING					I	4-21
**	STEERING SYSTEM					I	4-22

* Should be serviced by your 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 your Honda dealer.

NOTES:

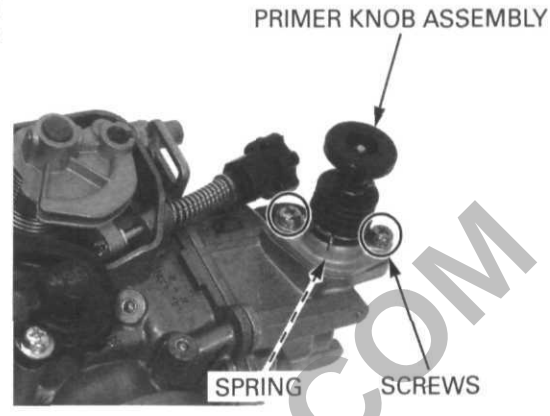
1. Service more frequently when riding in dusty areas, sand or snow.
2. Service more frequency after riding in very wet or muddy conditions.
3. Replace every 2 years. Replacement requires mechanical skill.

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PRIMER KNOB

Install the primer knob with the spring and tighten the two screws, being careful not to pinch the diaphragm.

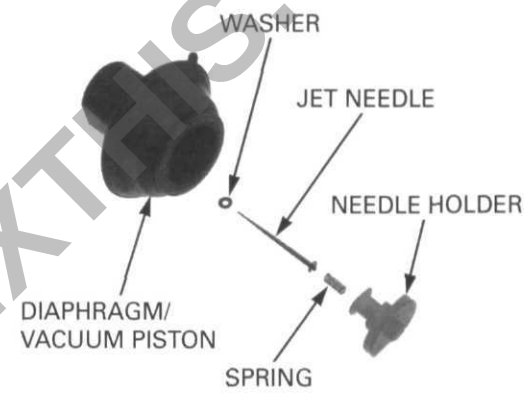


VACUUM CHAMBER

Install the needle clip onto the jet needle.

Install the washer onto the jet needle and insert the jet needle into the vacuum piston.

Install the spring into the needle holder and set the needle holder into the vacuum piston.

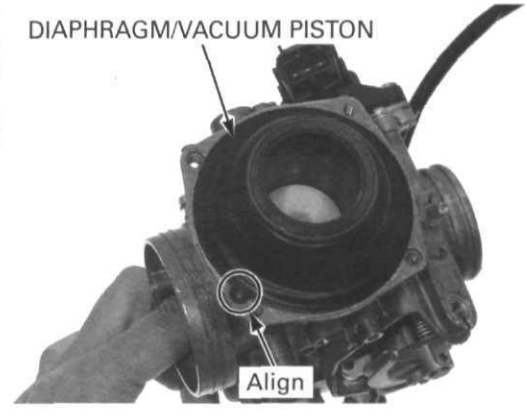


Turn the needle holder clockwise while pressing it until it locks. Holder flange should be fitted the vacuum piston after turning.



Be careful not to damage the jet needle.

Install the diaphragm/vacuum piston into the carburetor body by aligning the tab of the diaphragm with the air passage, then insert the jet needle into the needle jet.
Lift the bottom of the piston with your finger to set the diaphragm rib into the groove in the carburetor body.



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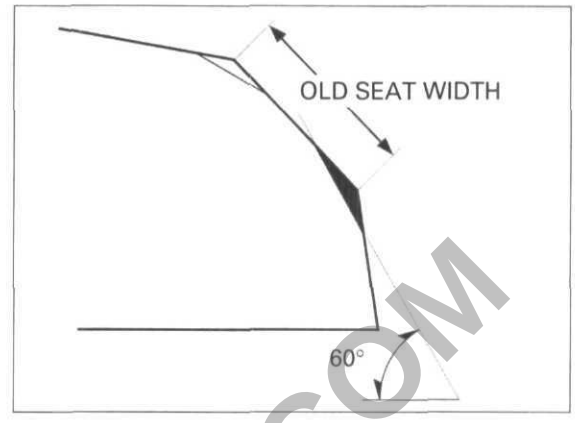
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Using a 60° interior cutter, remove 1/4 of the existing valve seat material.

TOOLS:

Interior cutter, 37.5 mm (45° IN)	**07780-0014100**
Interior cutter, 34 mm (45° EX)	**07780-0014700**
Cutter holder, 6.0 mm	**07VMH-MBB0100**

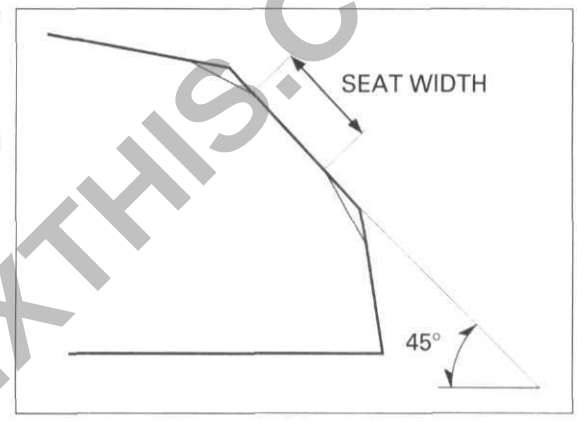
or equivalent commercially available in U.S.A.



Using a 45° seat cutter, cut the seat to the proper width.

VALVE SEAT WIDTH: 1.2 mm (0.05 in)

Make sure that all pitting and irregularities are removed.

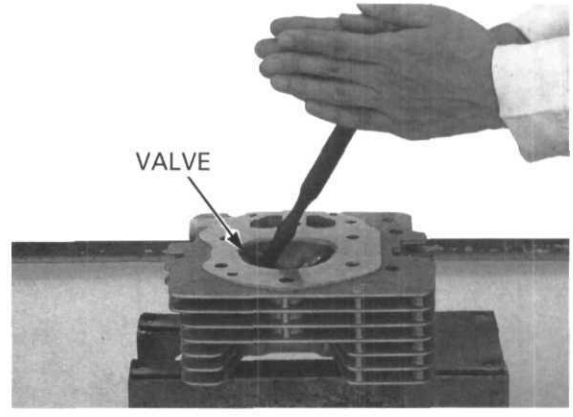


After cutting the seat, apply lapping compound to the valve face, and lap the valve using light pressure.

NOTE:

- Excessive lapping pressure may deform or damage the seat.
- Change the angle of the lapping tool frequently to prevent uneven seat wear.
- Do not allow lapping compound to enter the guides.

After lapping, wash any residual compound off the cylinder head and valve and recheck the seat contact.



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LIGHTS/METER/SWITCHES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Oil temperature sensor	1	12	18 (1.8, 13)	

ELECTRIC SHIFT PROGRAM (ESP: FE model):

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Angle sensor bolt	2	5	6 (0.6, 4.4)	NOTE 1
Reverse shift switch	1	10	13 (1.3, 10)	

FRAME

FRAME/BODY PANELS/EXHAUST SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Front carrier bolt	4	8	37 (3.8, 27)	
Front carry pipe bolt	4	8	37 (3.8, 27)	
Rear carrier bolt	8	8	37 (3.8, 27)	
Muffler band bolt	2	8	23 (2.3, 17)	
Muffler cover band bolt	2	–	3.2 (0.33, 2.4)	
Exhaust pipe cover band bolt	2	–	3.2 (0.33, 2.4)	
Heat protector band bolt	3	–	5.4 (0.55, 4.0)	
Footpeg bracket bolt	4	8	32 (3.3, 24)	

MAINTENANCE

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Front differential oil filler cap (FM/FE only)	1	30	12 (1.2, 9)	
Front differential oil drain bolt (FM/FE only)	1	8	12 (1.2, 9)	
Rear final gear case oil check bolt	1	8	12 (1.2, 9)	
Rear final gear case oil filler cap	1	30	12 (1.2, 9)	
Rear final gear case oil drain bolt	1	8	12 (1.2, 9)	
Spark arrester bolt	3	6	12 (1.2, 9)	
Tie-rod lock nut (knuckle side)	2	12	54 (5.5, 40)	
Tie-rod lock nut (steering arm side)	2	12	54 (5.5, 40)	NOTE 8

LUBRICATION SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Cooling fan motor screw	3	5	1.5 (0.15, 1.1)	
Cooling fan nut	1	5	2.7 (0.27, 2.0)	NOTE 1
Cooling fan shroud tapping screw	3	4	0.8 (0.08, 0.6)	

FUEL SYSTEM

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Starting enrichment (SE) valve nut	1	14	2.3 (0.23, 1.7)	

ENGINE REMOVAL/INSTALLATION

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N·m (kgf·m, lbf·ft)	REMARKS
Lower engine hanger nut (left and right)	2	10	54 (5.5, 40)	
Left lower engine hanger bracket bolt	2	8	32 (3.3, 24)	
Upper engine hanger nut (frame side)	1	10	54 (5.5, 40)	
Upper engine hanger bolt (engine side)	2	8	32 (3.3, 24)	
Gearshift pedal pinch bolt (TM/FM only)	1	6	16 (1.6, 12)	

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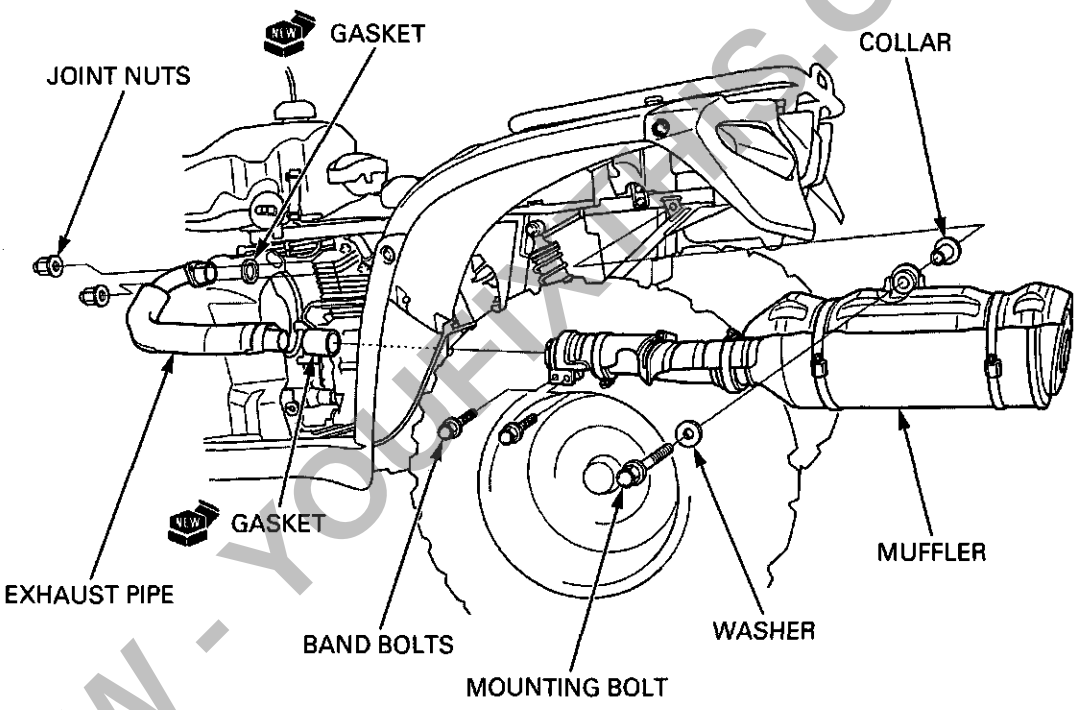
INSTALLATION

Install the collar into the mounting rubber in the muffler stay.
Install the muffler onto the frame and loosely tighten the mounting bolt.
Install the exhaust pipe into the muffler and cylinder head with new gaskets, and loosely tighten the joint nuts and muffler band bolts.

Tighten the exhaust pipe joint nuts.
Tighten the muffler band bolts.

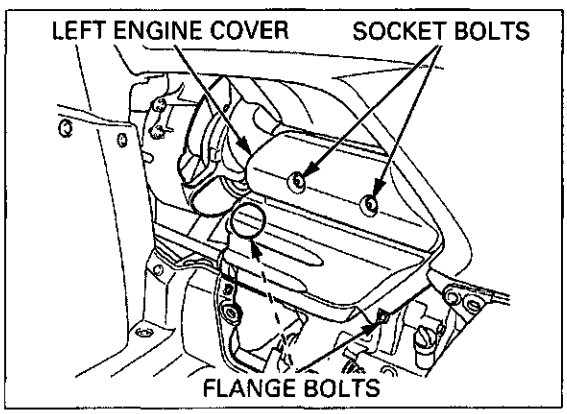
TORQUE: 23 N·m (2.3 kgf·m, 17 lbf·ft)

Tighten the muffler mounting bolt.



Install the following:

- two socket bolts, flange bolts and left engine cover
- left engine air guide (page 3-12)
- left side cover (page 3-5)



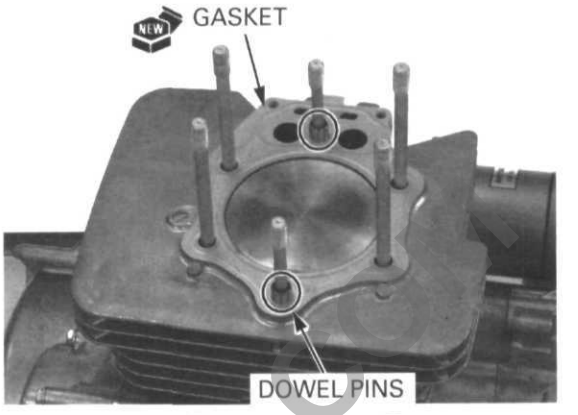
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CYLINDER HEAD INSTALLATION

Clean the mating surfaces of the cylinder and cylinder head, being careful not to damage them.

Install the two dowel pins and a new gasket with the mark facing up.



Take care not to drop the nuts and washers into the cylinder.

Apply engine oil to the threads of the cap nuts and install them with the washers.
Install the two bolts

Tighten the cap nuts in a crisscross pattern in several steps.

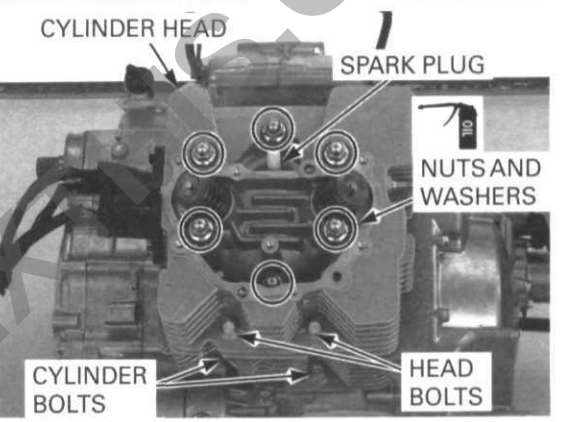
TORQUE: 39 N·m (4.0 kgf·m, 29 lbf·ft)

Tighten the two cylinder bolts and two cylinder head bolts securely.

Install the spark plug and tighten it.

TORQUE: 22 N·m (2.2 kgf·m, 16 lbf·ft)

Connect the spark plug cap.



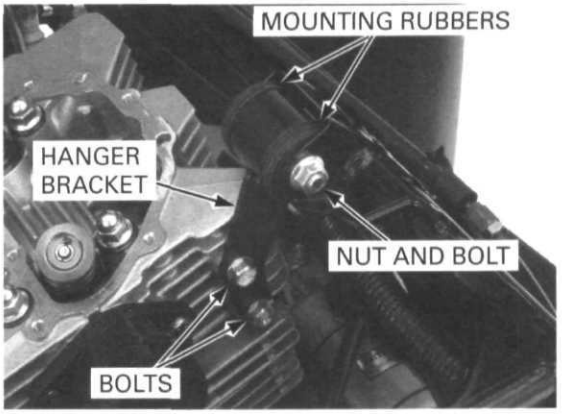
Insert the frame side hanger bolt from the front side.

Install the mounting rubbers onto the hanger bracket bushing with the large I.D. side facing in. Install the engine hanger bracket with the three bolts and nut.

Tighten the engine hanger fasteners.

TORQUE:
Frame side (10 mm): 54 N·m (5.5 kgf·m, 40 lbf·ft)
Engine side (8 mm): 32 N·m (3.3 kgf·m, 24 lbf·ft)

Install the following:
- cylinder head cover (page 8-18)
- carburetor (page 6-17)
- exhaust system (page 3-15)



CYLINDER HEAD COVER ASSEMBLY/ INSTALLATION

ASSEMBLY

Blow through the oil passages in the head cover with compressed air.

Coat new O-rings with engine oil and install them into each groove in the rocker arm shafts.

Apply molybdenum oil solution to the sliding surfaces of the shafts.



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