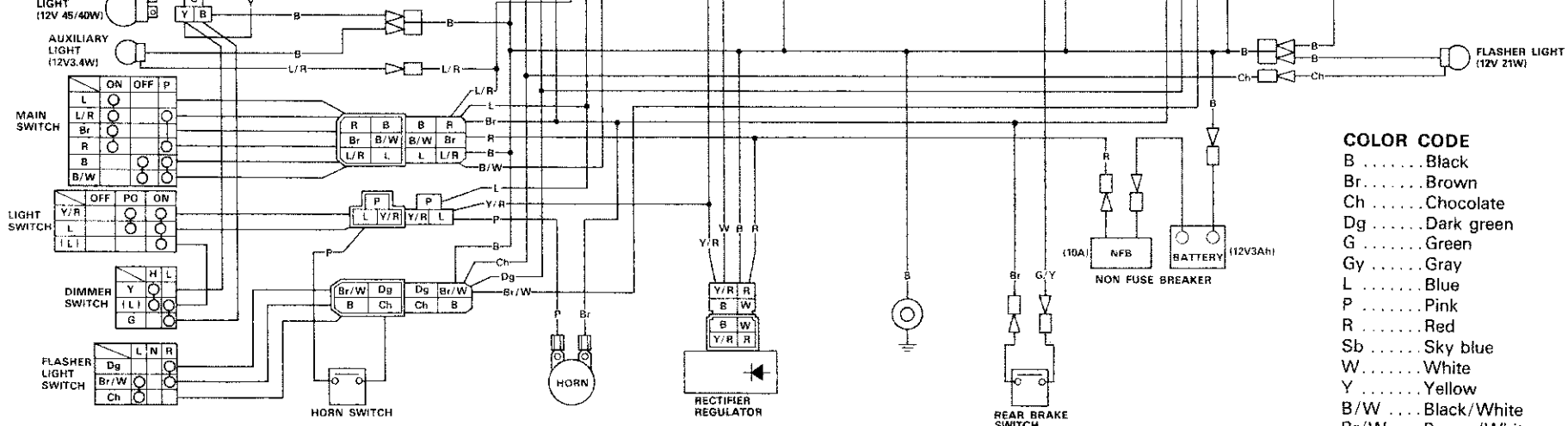
.S.A.

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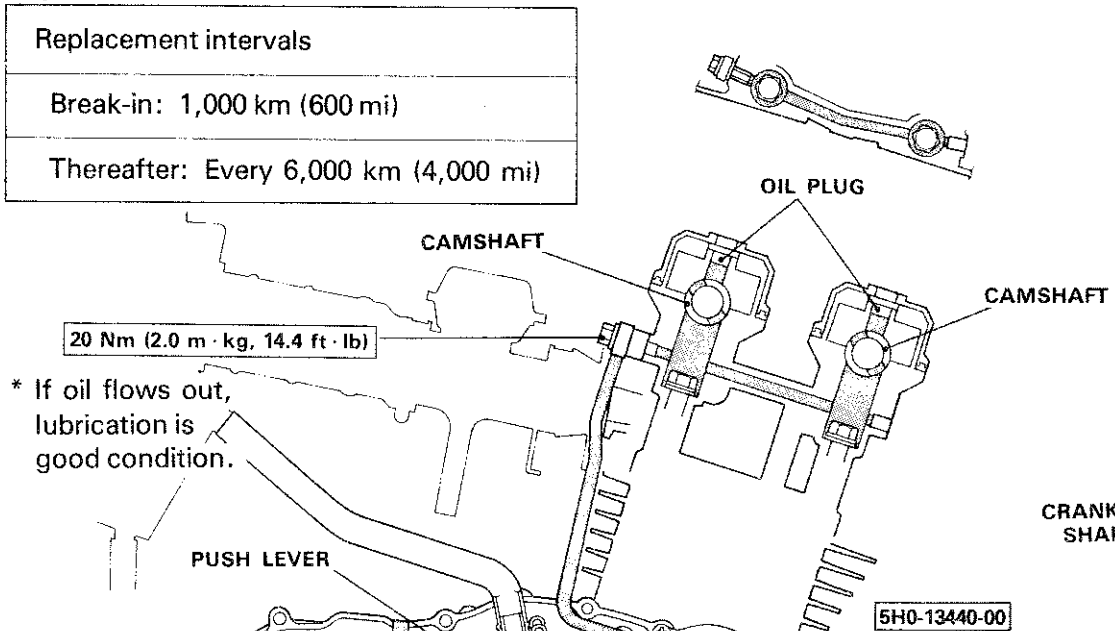


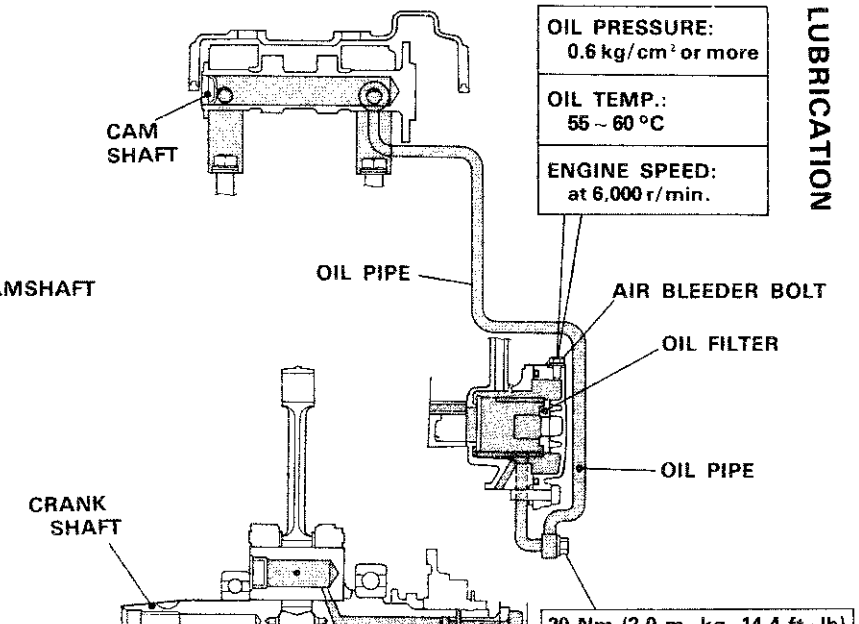
COLOR CODE

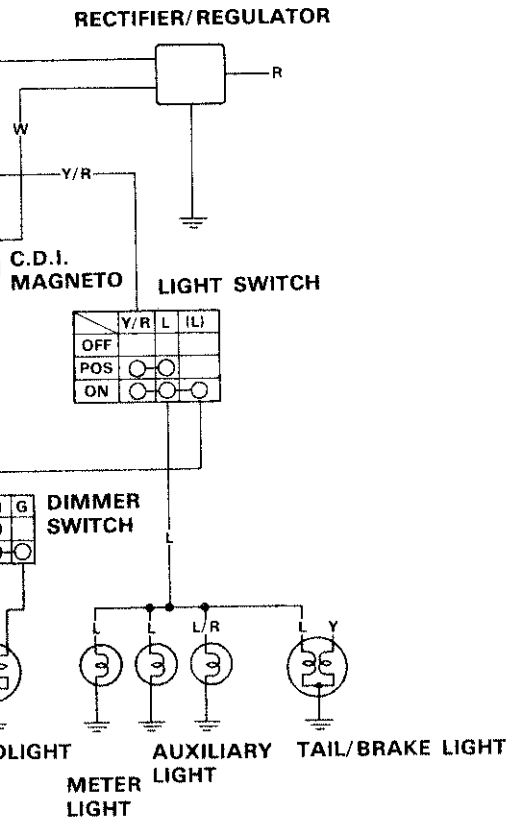
B .....Black
Br.....Brown
Ch .....Chocolate
Dg .....Dark green
G .....Green
Gy .....Gray
L .....Blue
P .....Pink
R .....Red
Sb .....Sky blue
W.....White
Y .....Yellow
B/W ....Black/White
Br/W....Brown/White
G/Y .....Green/Yellow
L/R .....Blue/Red
Y/R .....Yellow/Red

Engine oil and oil filter

Replacement intervals
Break-in: 1,000 km (600 mi)
Thereafter: Every 6,000 km (4,000 mi)







Taillight does not work:

- Check the bulb.
- Check for 12V on the blue wire.
- Check for ground on black wire to tail/brake light and/or license light assembly.

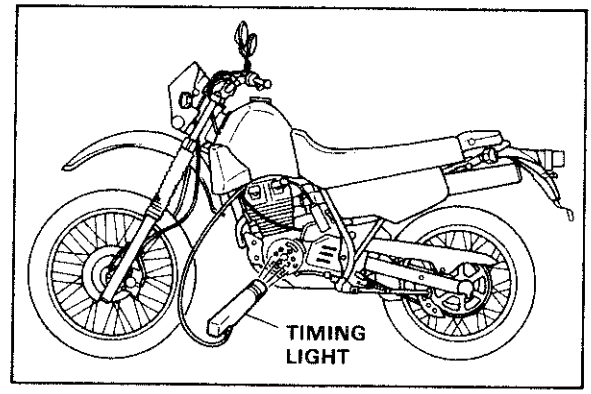
ner than
ified → Replace lighting coil assembly

ner than
ified → Replace Rectifier/ Regulator assembly

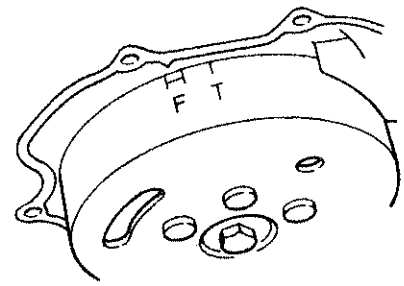
oltage → Light switch or wiring circuit defective (Blue lead)

oltage → Dimmer switch or wiring circuit is defective (Yellow and Green leads)

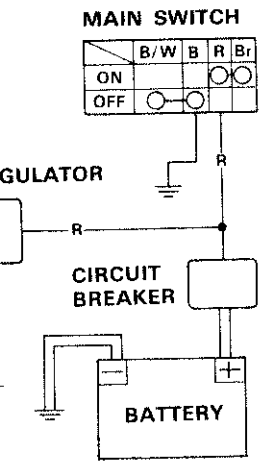
IGNITION TIMING

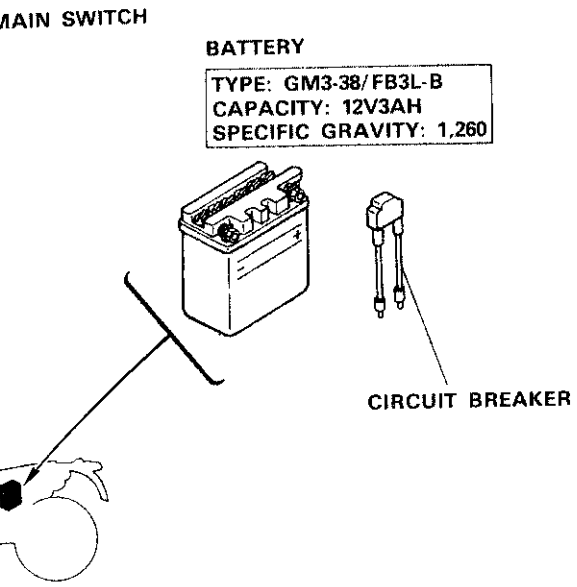


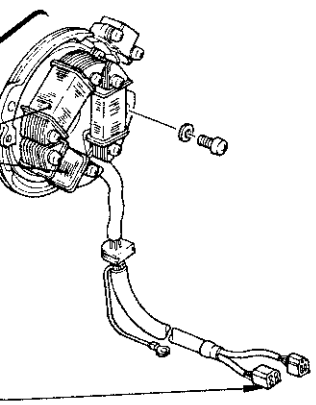
* When removing rotor assembly, use magneto puller attachment.



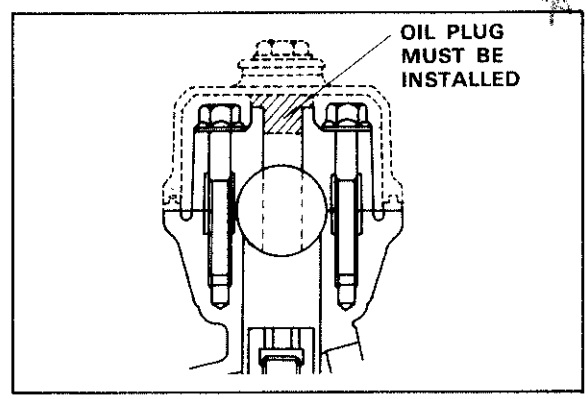
Ignition timing:	• B.T.D.C. 12° • 1,400 r/min

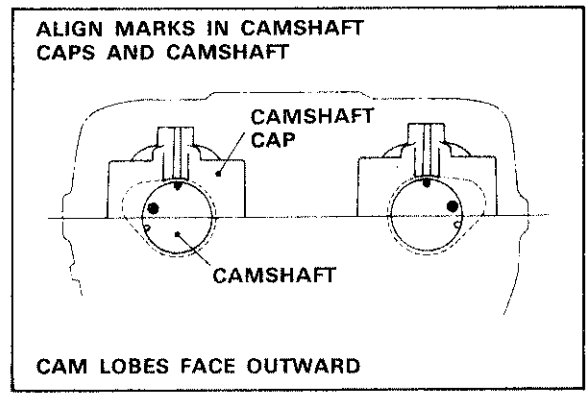

MAIN SWITCH
B/W
B
R
Br
ON
OFF
R
GULATOR
R
CIRCUIT
BREAKER
BATTERY


MAIN SWITCH
BATTERY
TYPE: GM3-38/FB3L-B
CAPACITY: 12V3AH
SPECIFIC GRAVITY: 1,260
CIRCUIT BREAKER



CAMCAP INSTALLATION





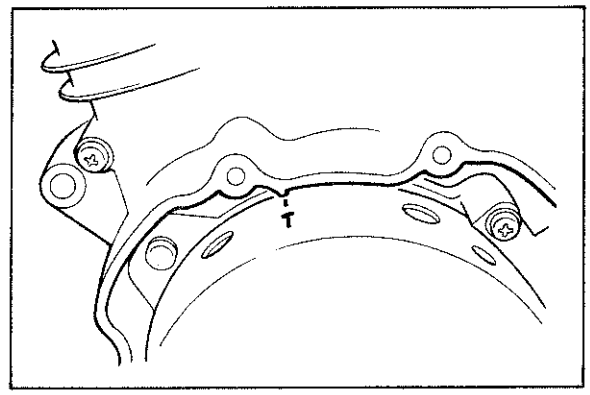
PROCEDURE

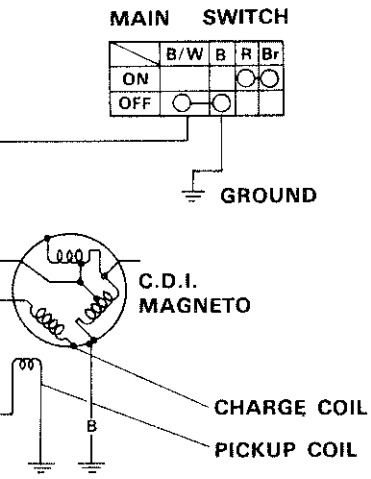
1. Align crankcase mark with keyways of crankshaft sprocket and crankshaft.

2. Align marks in camshaft and camshaft cap, and install camchain sprocket.

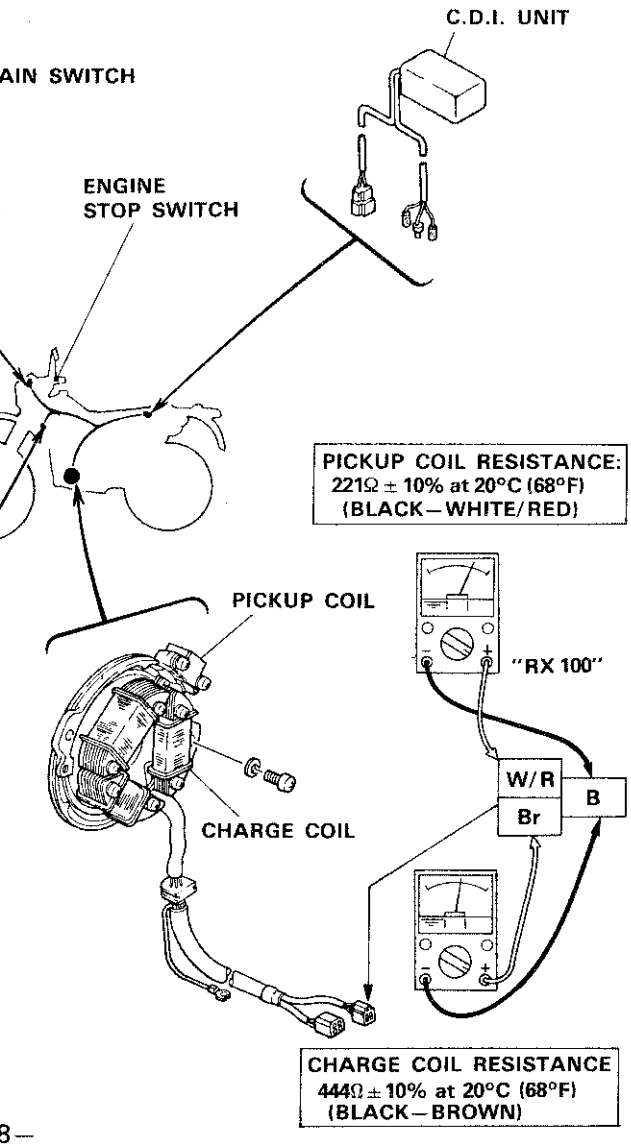
CAM SHAFT INSTALLATION

1. Turn crankshaft to counterclockwise, and align "T" mark on flywheel with stationary pointer.




MAIN SWITCH
B/W
B
R
Br
ON
OFF
GROUND
C.D.I.
MAGNETO
CHARGE COIL
PICKUP COIL
B

LUG

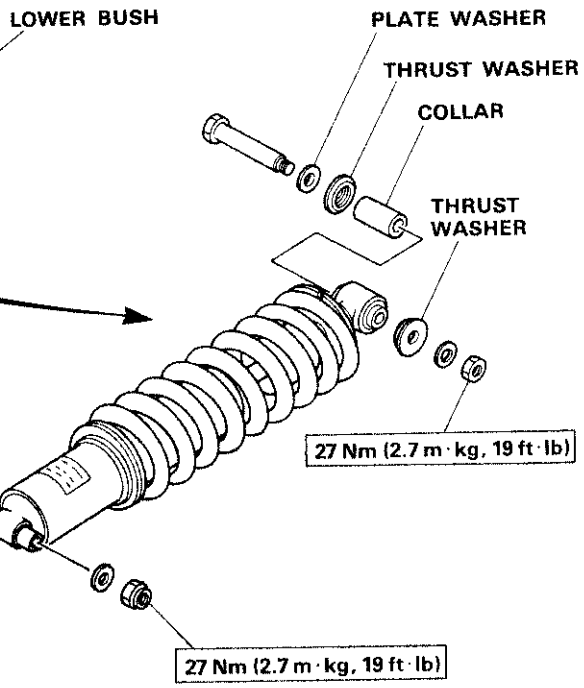

C.D.I. UNIT
AIN SWITCH
ENGINE
STOP SWITCH
PICKUP COIL RESISTANCE:
221Ω ± 10% at 20°C (68°F)
(BLACK—WHITE/RED)
PICKUP COIL
"RX 100"
W/R
Br
B
CHARGE COIL
CHARGE COIL RESISTANCE
444Ω ± 10% at 20°C (68°F)
(BLACK—BROWN)

Inta

MEASURED CLEARANCE	INSTA										
	200	205	210	215	220	225	230	235	240	245	250
0.00 ~ 0.02			200	205	210	215	220	225	230	235	240
0.03 ~ 0.07		200	205	210	215	220	225	230	235	240	245
0.08 ~ 0.12											
0.13 ~ 0.17	205	210	215	220	225	230	235	240	245	250	255
0.18 ~ 0.22	210	215	220	225	230	235	240	245	250	255	260
0.23 ~ 0.27	215	220	225	230	235	240	245	250	255	260	265
0.28 ~ 0.32	220	225	230	235	240	245	250	255	260	265	270
0.33 ~ 0.37	225	230	235	240	245	250	255	260	265	270	275
0.38 ~ 0.42	230	235	240	245	250	255	260	265	270	275	280
0.43 ~ 0.47	235	240	245	250	255	260	265	270	275	280	285
0.48 ~ 0.52	240	245	250	255	260	265	270	275	280	285	290
0.53 ~ 0.57	245	250	255	260	265	270	275	280	285	290	295
0.58 ~ 0.62	250	255	260	265	270	275	280	285	290	295	300
0.63 ~ 0.67	255	260	265	270	275	280	285	290	295	300	305
0.68 ~ 0.72	260	265	270	275	280	285	290	295	300	305	310
0.73 ~ 0.77	265	270	275	280	285	290	295	300	305	310	315
0.78 ~ 0.82	270	275	280	285	290	295	300	305	310	315	320
0.83 ~ 0.87	275	280	285	290	295	300	305	310	315	320	
0.88 ~ 0.92	280	285	290	295	300	305	310	315	320		
0.93 ~ 1.97	285	290	295	300	305	310	315	320			
0.98 ~ 1.02	290	295	300	305	310	315	320				
1.03 ~ 1.07	295	300	305	310	315	320					
1.08 ~ 1.12	300	305	310	315	320						
1.13 ~ 1.17	305	310	315	320							
1.18 ~ 1.22	310	315	320								
1.23 ~ 1.27	315	320									
1.28 ~ 1.32	320										

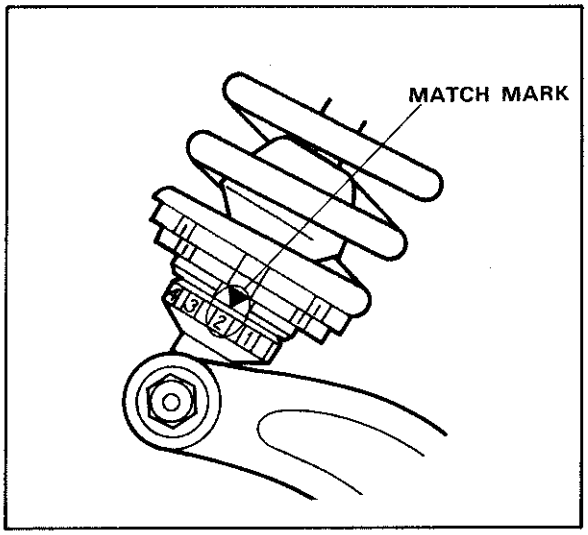
Exha

MEASURED CLEARANCE	INSTA										
	200	205	210	215	220	225	230	235	240	245	250
0.00 ~ 0.02				200	205	210	215	220	225	230	235
0.03 ~ 0.07			200	205	210	215	220	225	230	235	240
0.08 ~ 0.12		200	205	210	215	220	225	230	235	240	245
0.13 ~ 0.17											
0.18 ~ 0.22	205	210	215	220	225	230	235	240	245	250	255
0.23 ~ 0.27	210	215	220	225	230	235	240	245	250	255	260
0.28 ~ 0.32	215	220	225	230	235	240	245	250	255	260	265
0.33 ~ 0.37	220	225	230	235	240	245	250	255	260	265	270
0.38 ~ 0.42	225	230	235	240	245	250	255	260	265	270	275
0.43 ~ 0.47	230	235	240	245	250	255	260	265	270	275	280
0.48 ~ 0.52	235	240	245	250	255	260	265	270	275	280	285
0.53 ~ 0.57	240	245	250	255	260	265	270	275	280	285	290
0.58 ~ 0.62	245	250	255	260	265	270	275	280	285	290	295
0.63 ~ 0.67	250	255	260	265	270	275	280	285	290	295	300
0.68 ~ 0.72	255	260	265	270	275	280	285	290	295	300	305
0.73 ~ 0.77	260	265	270	275	280	285	290	295	300	305	310
0.78 ~ 0.82	265	270	275	280	285	290	295	300	305	310	315
0.83 ~ 0.87	270	275	280	285	290	295	300	305	310	315	320
0.88 ~ 0.92	275	280	285	290	295	300	305	310	315	320	
0.93 ~ 1.97	280	285	290	295	300	305	310	315	320		
0.98 ~ 1.02	285	290	295	300	305	310	315	320			
1.03 ~ 1.07	290	295	300	305	310	315	320				
1.08 ~ 1.12	295	300	305	310	315	320					
1.13 ~ 1.17	300	305	310	315	320						
1.18 ~ 1.22	305	310	315	320							
1.23 ~ 1.27	310	315	320								
1.28 ~ 1.32	315	320									
1.33 ~ 1.37	320										

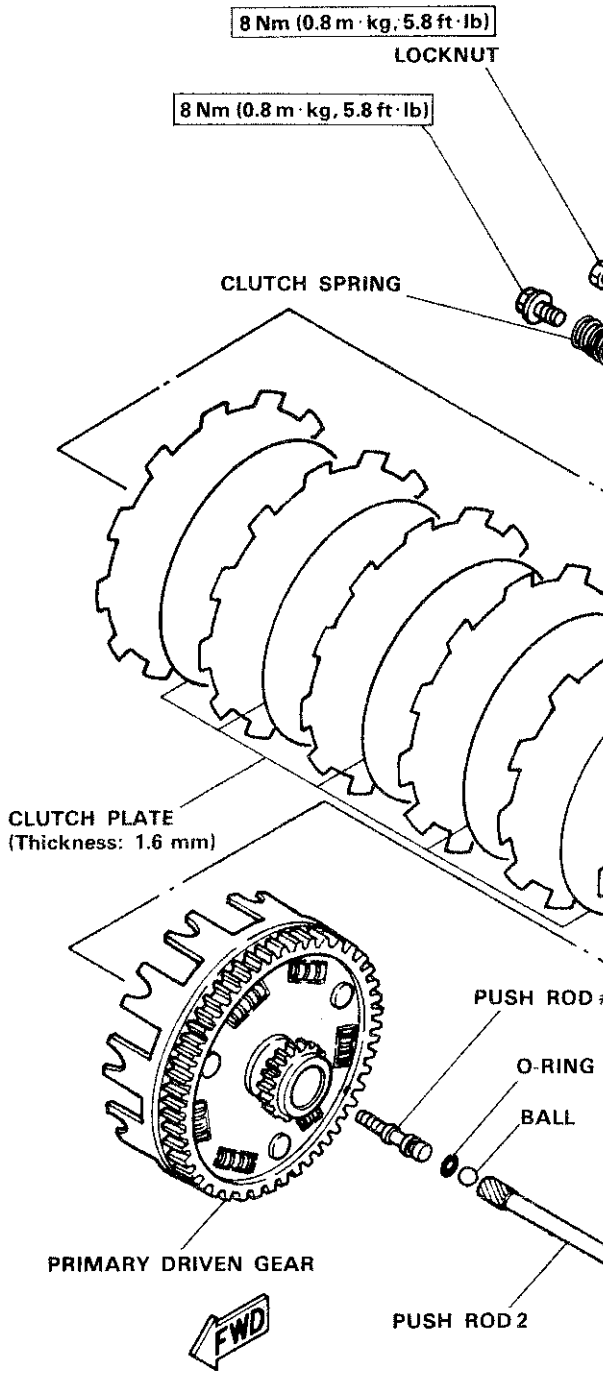


[DAMPING ADJUSTER]

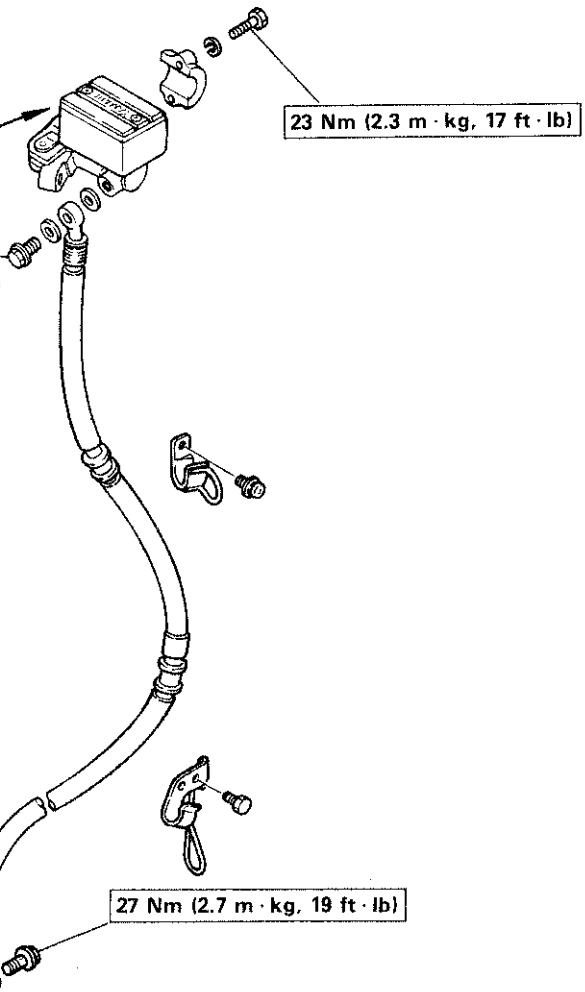
	Stiffer			STD	Softer
Adjusting Position	5	4	3	2	1

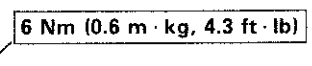


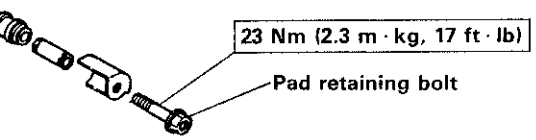
CLUTCH



* When installing, align mark (○) on clutch both with mark (⇧) clutch pressure plate.


23 Nm (2.3 m · kg, 17 ft · lb)
27 Nm (2.7 m · kg, 19 ft · lb)

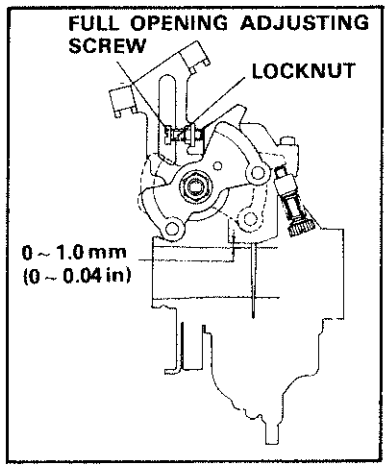

6 Nm (0.6 m · kg, 4.3 ft · lb)


23 Nm (2.3 m · kg, 17 ft · lb)
Pad retaining bolt

CARBURETOR SYNCRONAIZATION

PRIMARY CARB. FULL-OPEN ADJUSTMENT

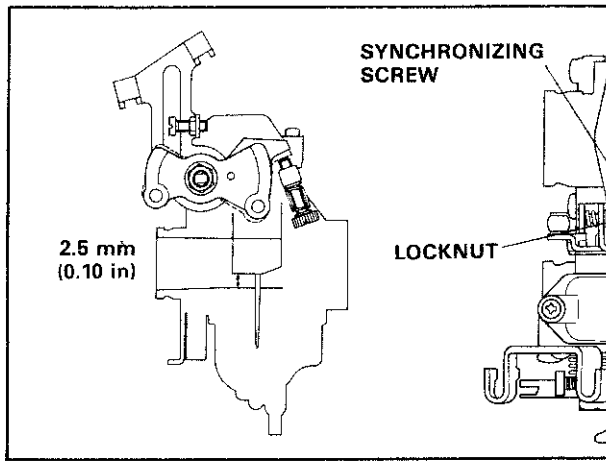
Turn the grip to move the drum-wire assembly to the full-throttle position. Then turn the full-open adjusting screw in or out so the carb valve bottom is positioned within the limits as specified, then secure the locknut on it.





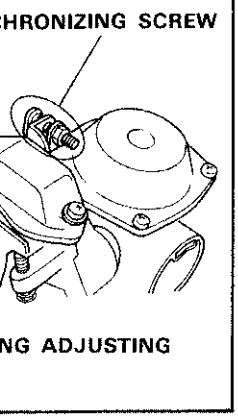
SECONDARY CARB—SYNCHRONIZATION

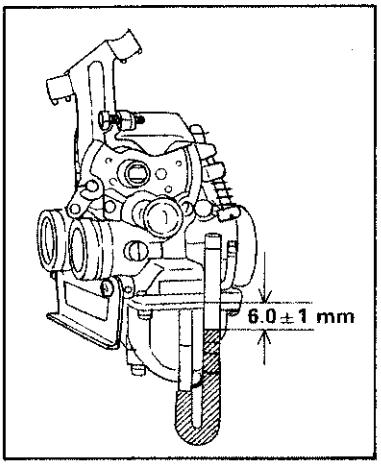
Raise the primary carb valve to a height of 2.5 mm (0.10 in) as indicated. Then adjust the synchronizing screw so the secondary throttle shaft just contacts the secondary throttle push lever.



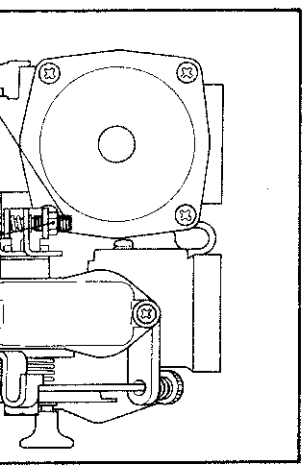
Fuel Level:
6.0 ± 1.0 mm (0.24 ± 0.04 in)
below the carb body edge

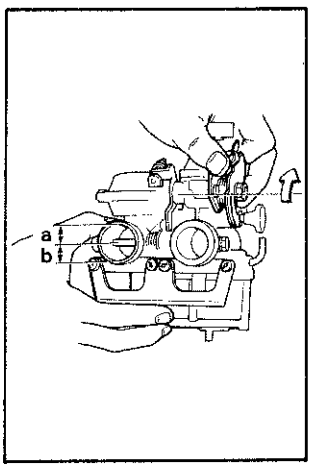
Float Height:
27.0 ± 2.5 mm (1.06 ± 0.10 in)



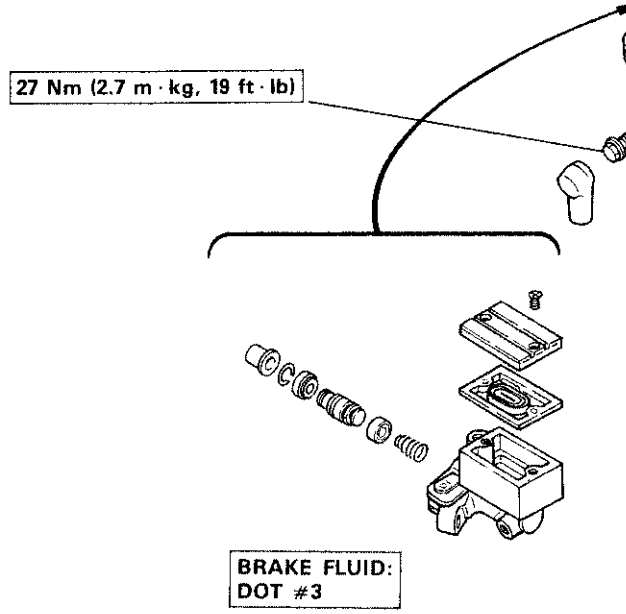


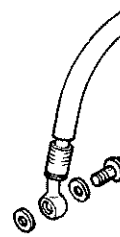
As the primary carb valve is further opened, the secondary butterfly valve will finally be opened to its full horizontal position. (a = b)

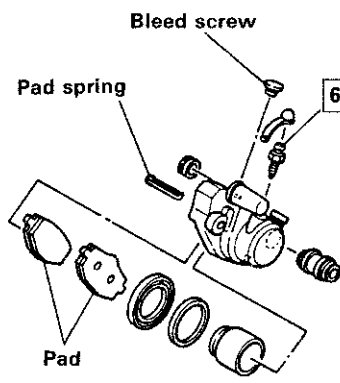


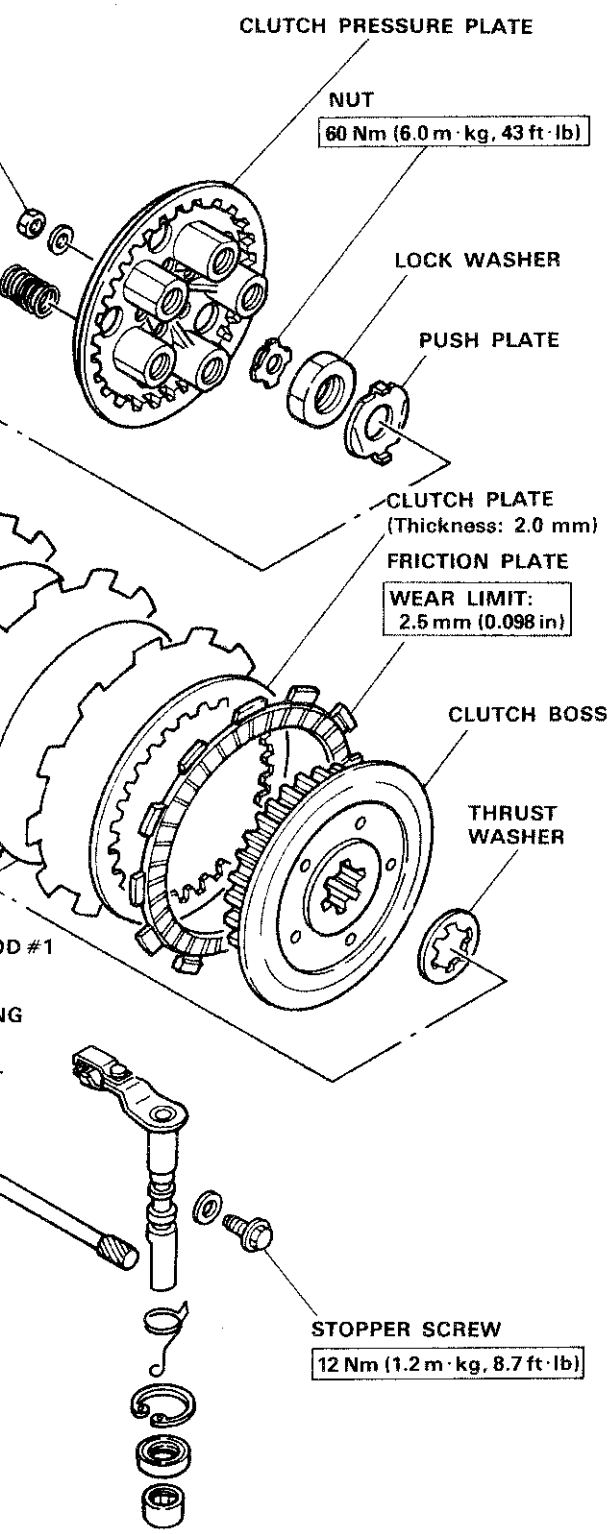


FRONT BRAKE

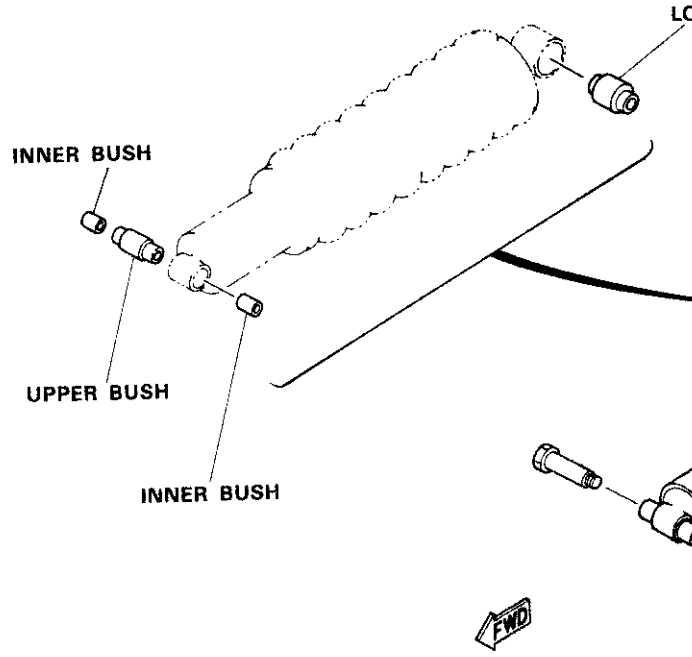

27 Nm (2.7 m · kg, 19 ft · lb)
BRAKE FLUID:
DOT #3




Bleed screw
Pad spring
Pad

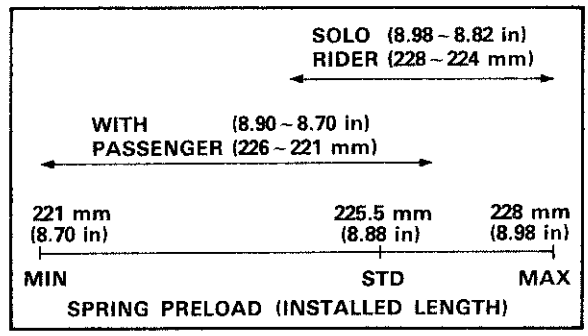

CLUTCH PRESSURE PLATE
NUT
60 Nm (6.0 m·kg, 43 ft·lb)
LOCK WASHER
PUSH PLATE
CLUTCH PLATE
(Thickness: 2.0 mm)
FRICTION PLATE
WEAR LIMIT:
2.5 mm (0.098 in)
CLUTCH BOSS
THRUST
WASHER
STOPPER SCREW
12 Nm (1.2 m·kg, 8.7 ft·lb)

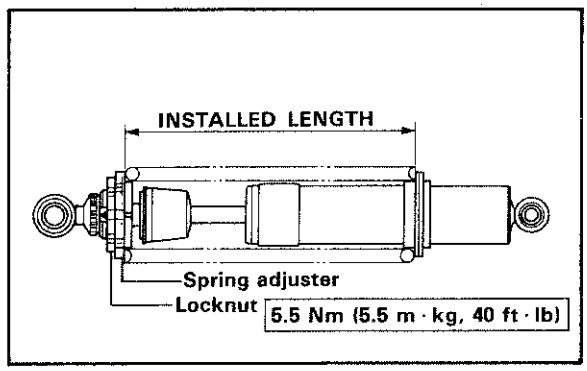
REAR SHOCK



[SPRING PRELOAD]

To increase the preload, turn the spring adjuster clockwise. To decrease the preload, turn the spring adjuster counterclockwise.
One complete turn of the adjuster will change the preload 1 mm (0.04 in).





Intake

STALLED PAD NUMBER														
250	255	260	265	270	275	280	285	290	295	300	305	310	315	320
240	245	250	255	260	265	270	275	280	285	290	295	300	305	310
245	250	255	260	265	270	275	280	285	290	295	300	305	310	315
255	260	265	270	275	280	285	290	295	300	305	310	315	320	
260	265	270	275	280	285	290	295	300	305	310	315	320		
265	270	275	280	285	290	295	300	305	310	315	320			
270	275	280	285	290	295	300	305	310	315	320				
275	280	285	290	295	300	305	310	315	320					
280	285	290	295	300	305	310	315	320						
285	290	295	300	305	310	315	320							
290	295	300	305	310	315	320								
295	300	305	310	315	320									
300	305	310	315	320										
305	310	315	320											
310	315	320												
315	320													
320														

VALVE CLEARANCE (engine cold) 0.08 ~ 0.12 mm (0.031 ~ 0.048 in)
Example Installed is 250
Measured clearance is 0.32 mm (0.013 in)
Replace 250 pad with 270
*Pad number: (example) Pad No. 250 = 2.50 mm (0.098 in)
Pad No. 255 = 2.55 mm (0.100 in)
Always install pad with number down

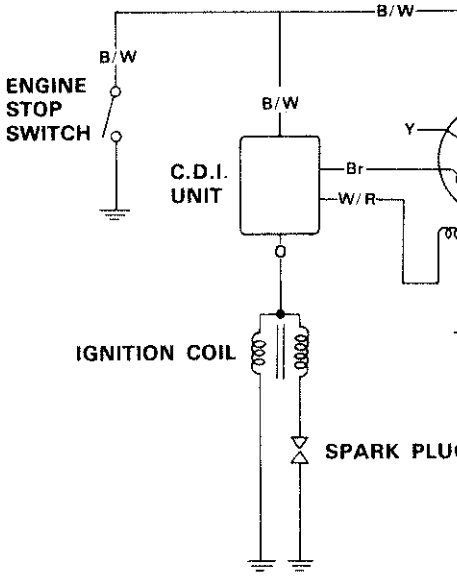
Exhaust

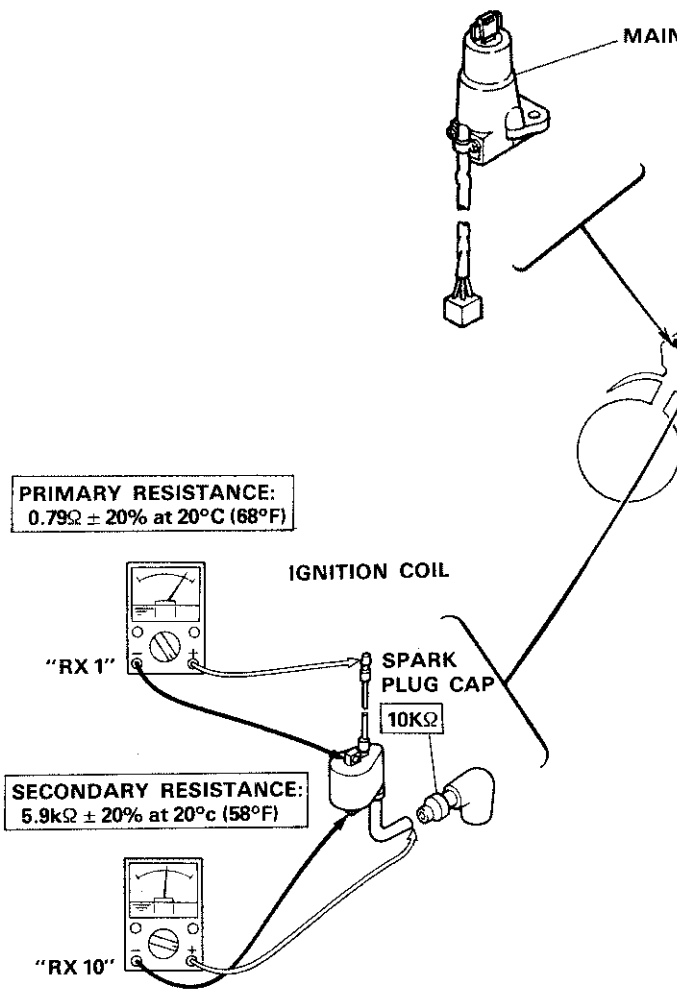
STALLED PAD NUMBER														
250	255	260	265	270	275	280	285	290	295	300	305	310	315	320
235	240	245	250	255	260	265	270	275	280	285	290	295	300	305
240	245	250	255	260	265	270	275	280	285	290	295	300	305	310
245	250	255	260	265	270	275	280	285	290	295	300	305	310	315
255	260	265	270	275	280	285	290	295	300	305	310	315	320	
260	265	270	275	280	285	290	295	300	305	310	315	320		
265	270	275	280	285	290	295	300	305	310	315	320			
270	275	280	285	290	295	300	305	310	315	320				
275	280	285	290	295	300	305	310	315	320					
280	285	290	295	300	305	310	315	320						
285	290	295	300	305	310	315	320							
290	295	300	305	310	315	320								
295	300	305	310	315	320									
300	305	310	315	320										
305	310	315	320											
310	315	320												
315	320													
320														

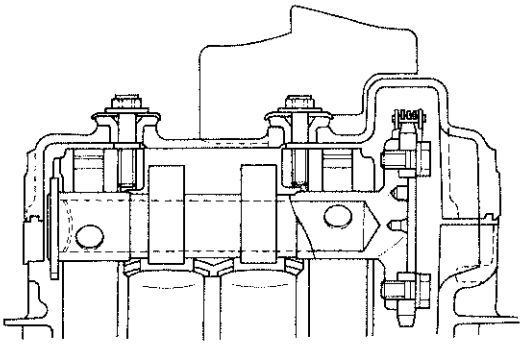
VALVE CLEARANCE (engine cold) 0.13 ~ 0.17 mm (0.052 ~ 0.068 in)
Example Installed is 250
Measured clearance is 0.32 mm (0.013 in)
Replace 250 pad with 265
*Pad number: (example) Pad No. 250 = 2.50 mm (0.098 in)
Pad No. 255 = 2.55 mm (0.100 in)
Always install pad with number down

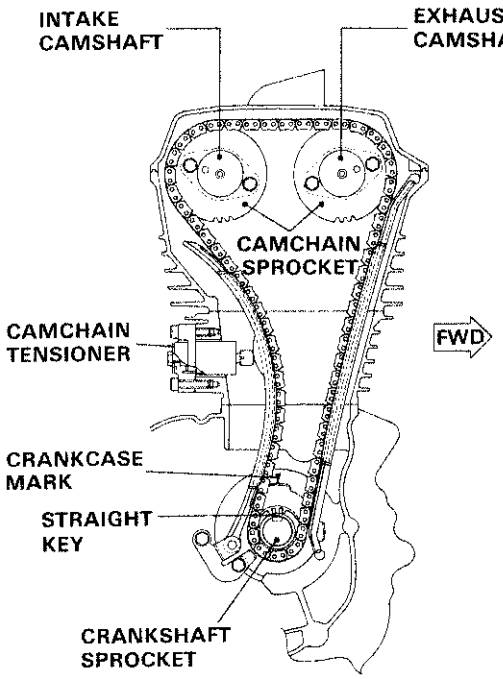
ELECTRICAL

IGNITION SYSTEM

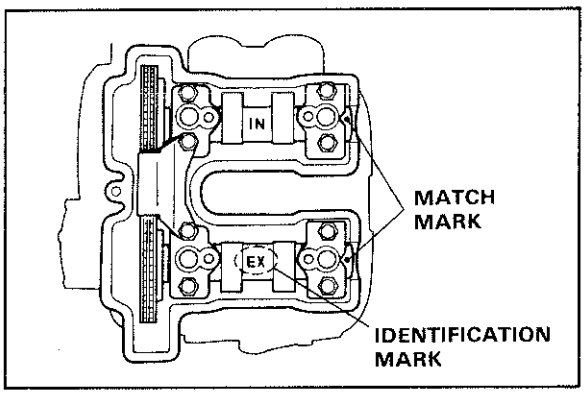




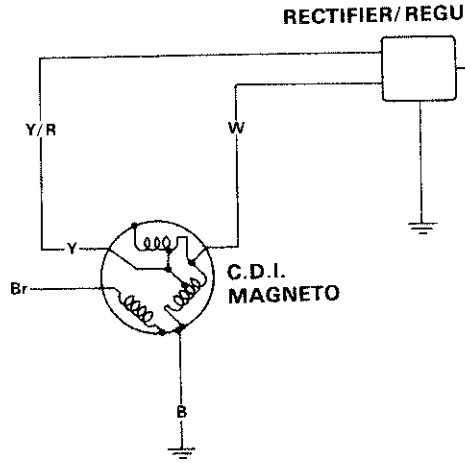


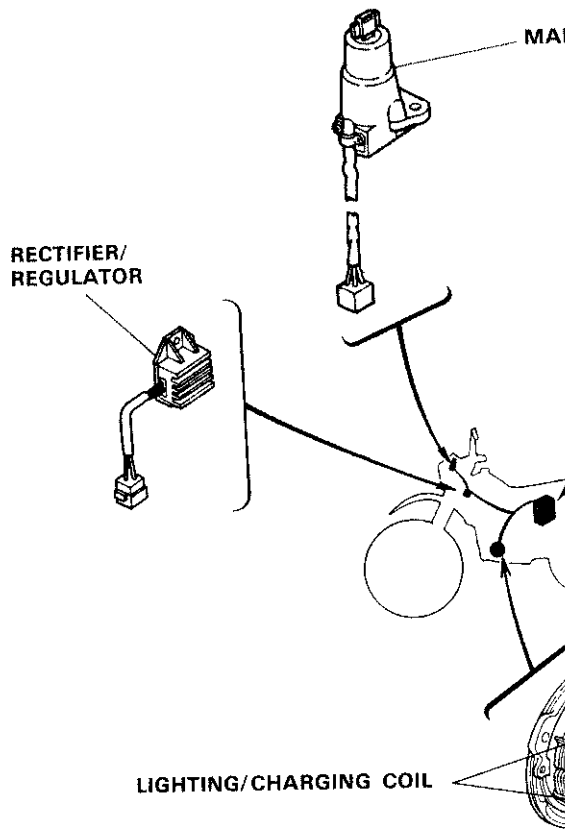


2. Install camshaft on cylinder head.
   The identification mark must be faced up side.

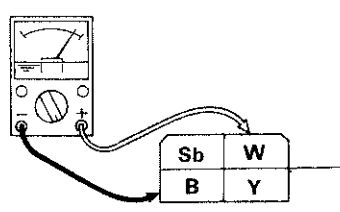


CHARGING SYSTEM

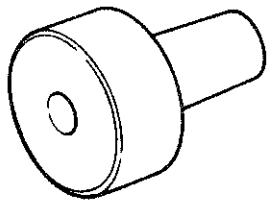




CHARGING COIL RESISTANCE:
0.46Ω ± 10% at 20°C (68°F)
(BLACK—WHITE)

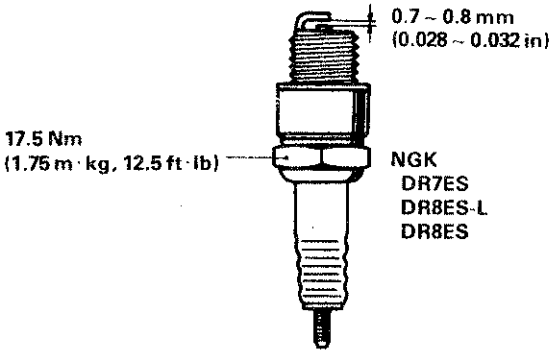


P/No. YM1382



CRANKSHAFT PROTECTOR

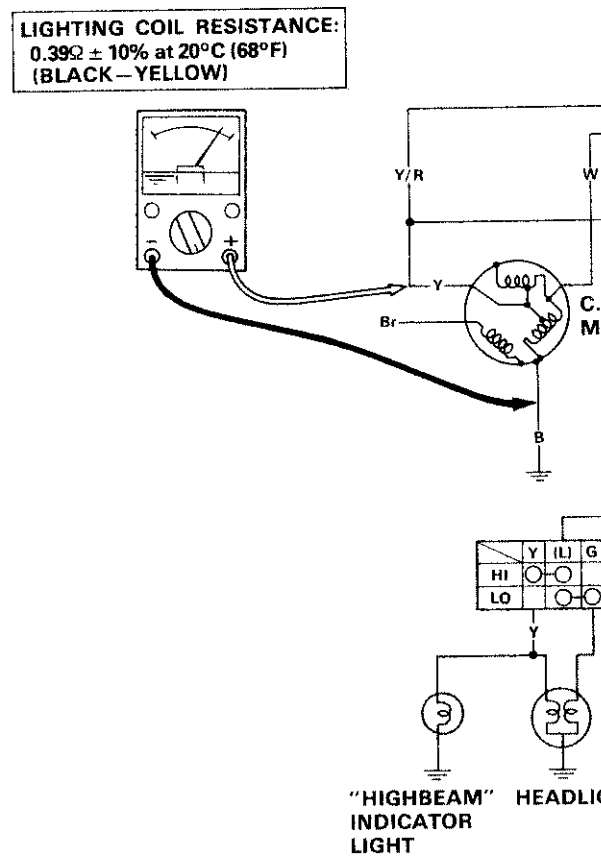
SPARK PLUG



- Maintenance intervals

Intial: 1,000 km (600 mi)	Thereafter: evey 6,000 km (4,000 mi)

LIGHTING SYSTEM



TROUBLESHOOTING

HEADLIGHT DOES NOT COME ON

↓

Poor ground or poor connection of headlight wiring

↓

Check lighting coil resistance
Lighting Coil: 0.39Ω ± 10% at 20°C (68°F)

If other specifie

↓

Check lighting voltage at light switch terminal
Lighting Voltage: 13.5V (Y/R lead)

If other specifie

↓

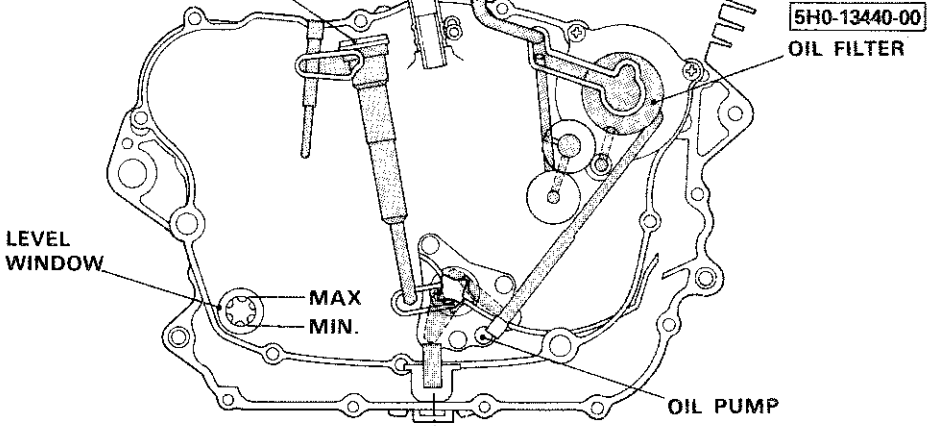
Check lighting voltage at dimmer switch terminal

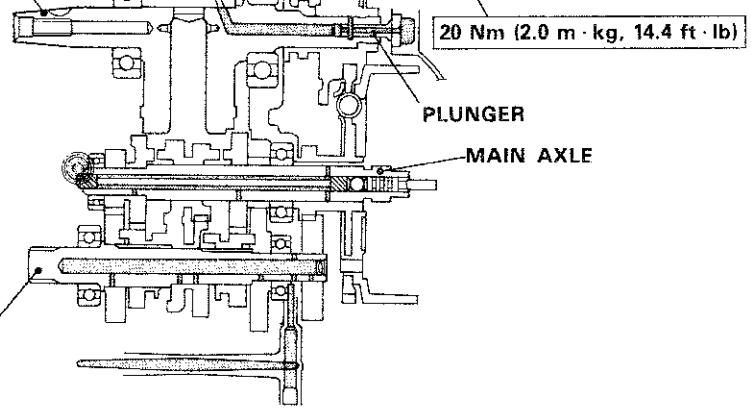
No volt

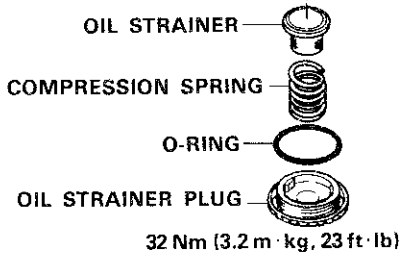
↓

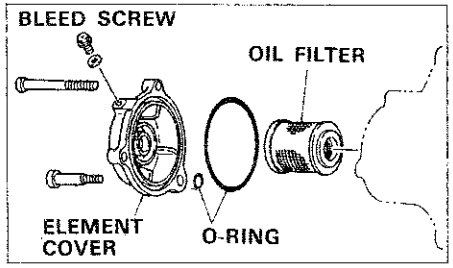
Check lighting voltage at headlight beam terminal (Yellow and Green leads)

No volt







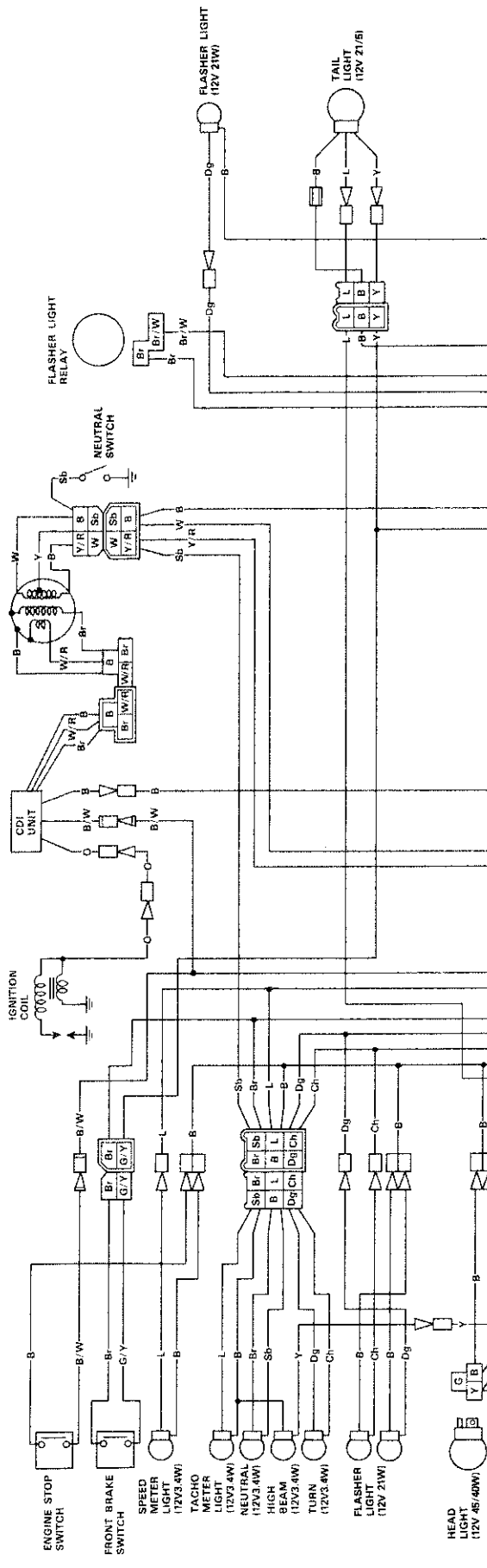


A dent (▽) faces engin side.

Recommended oil: SAE 20W40 Type SE Motor oil
Periodic oil change: 1.3 L (1.14 Imp qt, 1.34 US qt) Oil filter replacement: 1.4 L (1.23 Imp qt, 1.44 US qt) Total amount: 1.6 L (1.4 Imp qt, 1.7 US qt)

- DRAIN PLUG: 43 Nm (4.3 m · kg, 31 gt · lb)

WIRING DIAGRAM



YAMAHA MOTOR CORPORATION, U.S