












## SERVICE MANUAL

**SRX700D**  
**SRX700SD**

# INDEX

<b>GENERAL INFORMATION</b>	 GEN INFO <b>1</b>
<b>PERIODIC INSPECTION AND ADJUSTMENT</b>	 INSP ADJ <b>2</b>
<b>CHASSIS</b>	 CHAS <b>3</b>
<b>POWER TRAIN</b>	 POWR TR <b>4</b>
<b>ENGINE</b>	 ENG <b>5</b>
<b>COOLING SYSTEM</b>	 COOL <b>6</b>
<b>CARBURETION</b>	 CARB <b>7</b>
<b>ELECTRICAL</b>	 ELEC <b>8</b>
<b>SPECIFICATIONS</b>	 SPEC <b>9</b>

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## CHAPTER 1. GENERAL INFORMATION

<b>MACHINE IDENTIFICATION</b> .....	1-1
FRAME SERIAL NUMBER .....	1-1
ENGINE SERIAL NUMBER .....	1-1
<b>IMPORTANT INFORMATION</b> .....	1-2
PREPARATION FOR REMOVAL AND DISASSEMBLY .....	1-2
ALL REPLACEMENT PARTS .....	1-2
GASKETS, OIL SEALS, AND O-RINGS ....	1-3
LOCK WASHERS/PLATES AND COTTER PINS .....	1-3
BEARINGS AND OIL SEALS .....	1-3
CIRCLIPS .....	1-3
LOCTITE® .....	1-3
<b>SPECIAL TOOLS</b> .....	1-4
FOR TUNE UP .....	1-4
FOR ENGINE SERVICE .....	1-5
FOR POWER TRAIN SERVICE .....	1-5
FOR CARBURETION SERVICE .....	1-6
FOR ELECTRICAL SERVICE .....	1-6

## CHAPTER 2. PERIODIC INSPECTION AND ADJUSTMENT

<b>INTRODUCTION</b> .....	2-1
<b>PERIODIC MAINTENANCE TABLE</b> .....	2-1
<b>ENGINE</b> .....	2-3
SPARK PLUGS .....	2-3
OIL PUMP .....	2-4
FUEL LINE INSPECTION .....	2-5
COOLING SYSTEM .....	2-6
CARBURETOR SYNCHRONIZATION .....	2-10
ENGINE IDLE SPEED ADJUSTMENT ....	2-10
THROTTLE CABLE FREEPLAY ADJUSTMENT .....	2-11
THROTTLE OVERRIDE SYSTEM (T.O.R.S.) CHECK .....	2-12
STARTER (CHOKE) CABLE FREEPLAY ADJUSTMENT .....	2-13
EXHAUST SYSTEM INSPECTION .....	2-13
HEAT SHIELD CLAMP REPLACEMENT .	2-14

YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) ADJUSTMENT .....	2-15
YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) PRE-SEASON CHECKS .....	2-16

<b>POWER TRAIN</b> .....	2-18
SHEAVE DISTANCE AND OFFSET ADJUSTMENT .....	2-18
DRIVE V-BELT .....	2-20
ENGAGEMENT SPEED CHECK .....	2-22
PARKING BRAKE PAD INSPECTION .....	2-22
PARKING BRAKE ADJUSTMENT .....	2-22
BRAKE LEVER ADJUSTMENT .....	2-23
BRAKE FLUID LEVEL INSPECTION .....	2-24
BRAKE PAD INSPECTION .....	2-24
BRAKE HOSE INSPECTION .....	2-25
AIR BLEEDING (HYDRAULIC BRAKE SYSTEM) .....	2-25
DRIVE CHAIN .....	2-26
TRACK TENSION ADJUSTMENT .....	2-29
SLIDE RUNNER INSPECTION .....	2-30

<b>CHASSIS</b> .....	2-31
SKI/SKI RUNNER .....	2-31
STEERING SYSTEM .....	2-31
LUBRICATION .....	2-33

<b>ELECTRICAL</b> .....	2-34
HEADLIGHT BEAM ADJUSTMENT .....	2-34

<b>TUNING</b> .....	2-35
CARBURETOR TUNING .....	2-35
CLUTCH .....	2-42
GEAR SELECTION .....	2-43
HIGH ALTITUDE TUNING .....	2-49
FRONT SUSPENSION .....	2-50
REAR SUSPENSION .....	2-52

## CHAPTER 3. CHASSIS

<b>STEERING</b> .....	3-1
INSPECTION .....	3-3
INSTALLATION .....	3-4
<b>SKI</b> .....	3-6
INSPECTION .....	3-7

<b>FRONT SUSPENSION</b> .....	3-8
HANDLING NOTES .....	3-9
INSPECTION .....	3-9
INSTALLATION .....	3-11

## **CHAPTER 4. POWER TRAIN**

<b>PRIMARY SHEAVE AND DRIVE V-BELT</b> .....	4-1
REMOVAL .....	4-3
DISASSEMBLY .....	4-3
INSPECTION .....	4-4
ASSEMBLY .....	4-6
INSTALLATION .....	4-8

<b>SECONDARY SHEAVE</b> .....	4-9
DISASSEMBLY .....	4-11
INSPECTION .....	4-11
ASSEMBLY .....	4-12
INSTALLATION .....	4-14

<b>DRIVE CHAIN HOUSING</b> .....	4-15
INSPECTION .....	4-16
INSTALLATION .....	4-18

<b>JACKSHAFT</b> .....	4-19
INSPECTION .....	4-20
JACKSHAFT AND DRIVE CHAIN HOUSING INSTALLATION .....	4-21

<b>BRAKE</b> .....	4-22
BRAKE PAD REPLACEMENT .....	4-23
BRAKE CALIPER DISASSEMBLY .....	4-27
BRAKE CALIPER INSPECTION AND REPAIR .....	4-27
BRAKE CALIPER ASSEMBLY .....	4-28
BRAKE CALIPER INSTALLATION .....	4-28
INSPECTION .....	4-30
BRAKE MASTER CYLINDER ASSEMBLY .....	4-30
INSTALLATION .....	4-30

<b>SLIDE RAIL SUSPENSION</b> .....	4-31
INSPECTION .....	4-36
INSTALLATION .....	4-36

<b>FRONT AXLE AND TRACK</b> .....	4-37
INSPECTION .....	4-38
INSTALLATION .....	4-38

## **CHAPTER 5. ENGINE**

<b>EXHAUST ASSEMBLY</b> .....	5-1
REMOVAL .....	5-3
INSTALLATION .....	5-3

<b>ENGINE ASSEMBLY</b> .....	5-5
INSPECTION .....	5-6
INSTALLATION .....	5-6

<b>CYLINDER HEAD AND CYLINDER</b> .....	5-7
REMOVAL .....	5-9
INSPECTION .....	5-10
INSTALLATION .....	5-15

<b>OIL PUMP, CRANKCASE AND CRANKSHAFT</b> .....	5-18
INSPECTION .....	5-19
INSTALLATION .....	5-21

<b>AC MAGNETO</b> .....	5-23
REMOVAL .....	5-24
INSTALLATION .....	5-25

<b>RECOIL STARTER</b> .....	5-27
REMOVAL .....	5-28
INSPECTION .....	5-28
INSTALLATION .....	5-29

<b>YAMAHA POWER VALVE SYSTEM (Y.P.V.S.)</b> .....	5-30
REMOVAL .....	5-32
INSPECTION .....	5-32
ASSEMBLY .....	5-32
INSTALLATION .....	5-33

## **CHAPTER 6. COOLING SYSTEM**

<b>HEAT EXCHANGER</b> .....	6-1
INSPECTION .....	6-2
INSTALLATION .....	6-2

<b>WATER PUMP</b> .....	6-3
REMOVAL .....	6-4
INSPECTION .....	6-4
INSTALLATION .....	6-4

<b>OUTLET WATER JACKET JOINT</b> .....	6-5
INSPECTION .....	6-6
INSTALLATION .....	6-7

## **CHAPTER 7. CARBURETION**

<b>CARBURETORS</b> .....	7-1
INSPECTION .....	7-5
ASSEMBLY .....	7-6
FUEL LEVEL ADJUSTMENT .....	7-8
THROTTLE POSITION SENSOR (TPS) INSPECTION AND ADJUSTMENT .....	7-9
INSTALLATION .....	7-11
<b>FUEL PUMP</b> .....	7-12
INSPECTION .....	7-13
INSTALLATION .....	7-13

## **CHAPTER 8. ELECTRICAL**

<b>SWITCH INSPECTION</b> .....	8-1
SWITCH INSPECTION .....	8-1
INSPECTING A SWITCH SHOWN IN THE MANUAL .....	8-1
<b>IGNITION SYSTEM</b> .....	8-2
CIRCUIT DIAGRAM .....	8-2
TROUBLESHOOTING .....	8-3
SPARK PLUG CAP .....	8-4
IGNITION COIL .....	8-4
AC MAGNETO .....	8-4
SPARK PLUG .....	8-5
THROTTLE OVERRIDE SYSTEM (T.O.R.S.) .....	8-5
HANDLEBAR SWITCH (RIGHT) .....	8-6
CARBURETOR SWITCH .....	8-6
MAIN SWITCH .....	8-7
CONDENSER .....	8-7
EMERGENCY ENGINE STARTING .....	8-8
<b>LIGHTING SYSTEM</b> .....	8-9
CIRCUIT DIAGRAM .....	8-9
TROUBLESHOOTING .....	8-10
BULB(S) .....	8-11
HEADLIGHT BEAM SWITCH .....	8-11

HEADLIGHT RELAY .....	8-12
LOAD CONTROL RELAY .....	8-12

<b>SIGNAL SYSTEM</b> .....	8-13
CIRCUIT DIAGRAM .....	8-13
TROUBLESHOOTING .....	8-14
TAIL/BRAKE LIGHT BULB .....	8-17
BRAKE LIGHT SWITCH .....	8-17
WATER TEMPERATURE SENSOR .....	8-18
OIL LEVEL SWITCH .....	8-19
FUEL SENDER .....	8-19

<b>GRIP WARMER SYSTEM</b> .....	8-20
CIRCUIT DIAGRAM .....	8-20
TROUBLESHOOTING .....	8-21
GRIP AND THUMB WARMER COIL .....	8-22
VARIABLE RESISTOR .....	8-22

<b>YAMAHA POWER VALVE SYSTEM (Y.P.V.S.)</b> .....	8-23
CIRCUIT DIAGRAM .....	8-23
TROUBLESHOOTING .....	8-24
SERVOMOTOR .....	8-25

<b>FAULT LOCATION TABLE</b> .....	8-26
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## **CHAPTER 9. SPECIFICATIONS**

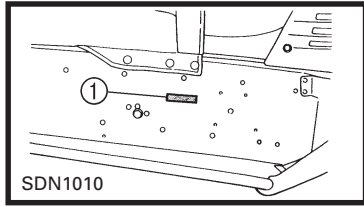
<b>GENERAL SPECIFICATIONS</b> .....	9-1
<b>MAINTENANCE SPECIFICATIONS</b> .....	9-3
ENGINE .....	9-3
POWER TRAIN .....	9-6
CHASSIS .....	9-10
ELECTRICAL .....	9-11
HIGH ALTITUDE SETTINGS .....	9-13
TIGHTENING TORQUE .....	9-14
<b>GENERAL TORQUE SPECIFICATIONS</b> .....	9-18
<b>DEFINITION OF UNITS</b> .....	9-18
<b>CABLE ROUTING</b> .....	9-19

## GENERAL INFORMATION

### MACHINE IDENTIFICATION

#### FRAME SERIAL NUMBER

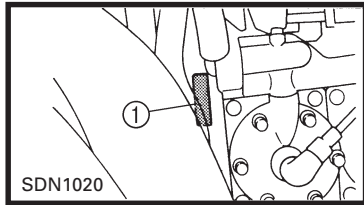
The frame serial number ① is located on the right-hand side of the frame (just below the front of the seat).



1

#### ENGINE SERIAL NUMBER

The engine serial number ① is located on the right-hand side of the crankcase.

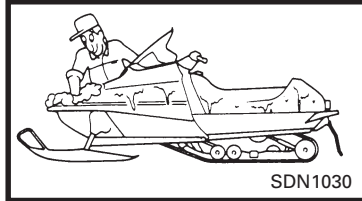


**NOTE:** \_\_\_\_\_

Designs and specifications are subject to change without notice.

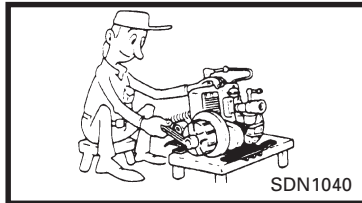
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**IMPORTANT INFORMATION  
PREPARATION FOR REMOVAL AND DISASSEMBLY**



1. Remove all dirt, mud, dust, and foreign material before removal and disassembly.

While cleaning, take care to protect the electrical parts, such as relays, switches, motor, resistors, controllers, etc., from high pressure water splashes.

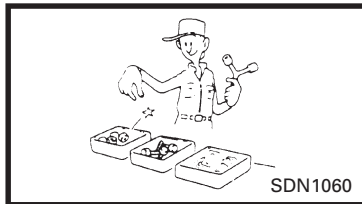


2. Use proper tools and cleaning equipment.

Refer to "SPECIAL TOOLS".

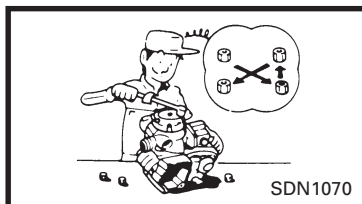


3. When disassembling the machine, keep mated parts together. This includes gears, cylinders, pistons, and other parts that have been "mated" through normal wear. Mated parts must be reused or replaced as an assembly.



4. During disassembly of the machine, clean all parts and place them in trays in the order of disassembly. This will speed up assembly time and help ensure that all parts are reinstalled correctly.

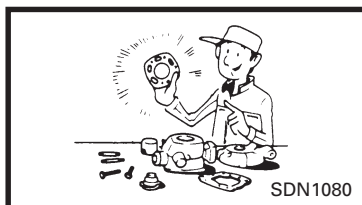
5. Keep all parts away from any source of fire.



6. Be sure to keep to the tightening torque specifications. When tightening bolts, nuts, and screws, start with those that have larger diameters, and proceed from the inside to the outside in a crisscross pattern.

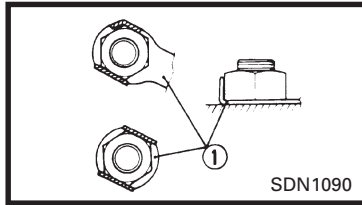
**ALL REPLACEMENT PARTS**

We recommend using genuine Yamaha parts for all replacements. Use oil and grease recommended by Yamaha for assembly and adjustments.



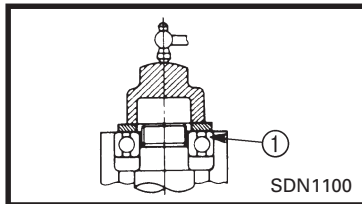
**GASKETS, OIL SEALS, AND O-RINGS**

1. All gaskets, seals, and O-rings should be replaced when an engine is overhauled. All gasket surfaces, oil seal lips, and O-rings must be cleaned.
2. Properly oil all mating parts and bearings during reassembly. Apply grease to the oil seal lips.



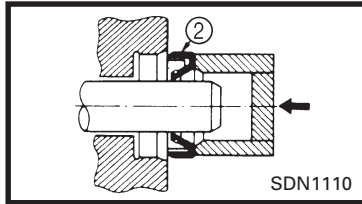
**LOCK WASHERS/PLATES AND COTTER PINS**

All lock washers/plates ① and cotter pins must be replaced if they are removed. Lock tab(s) should be bent along the bolt or nut flat(s) after the bolt or nut has been properly tightened.



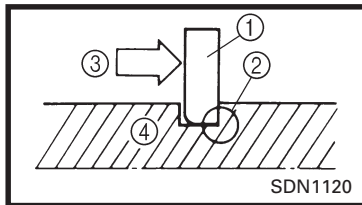
**BEARINGS AND OIL SEALS**

Install the bearings ① and oil seals ② with their manufacturer's marks or numbers facing outwards. (In other words, the stamped letters must be on the side exposed to view.) When installing oil seals, apply a light coating of lightweight lithium base grease to the seal lips. Oil the bearings liberally when installing.



**CAUTION:**

**Do not use compressed air to spin the bearings dry. This causes damage to the surface of the bearings.**



**CIRCLIPS**

All circlips should be inspected carefully before reassembly. Always replace piston pin clips after one use. Replace misshapen circlips. When installing a circlip ①, make sure that the sharp edged corner ② is positioned opposite to the thrust ③ it receives. See the sectional view.

④ Shaft

**LOCTITE®**

After installing fasteners that have LOCTITE® applied, wait 24 hours before using the machine. This will give the LOCTITE® time to dry properly.

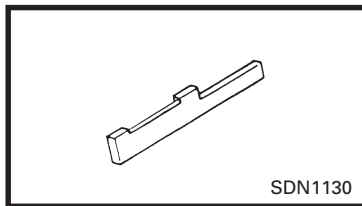


## SPECIAL TOOLS

Some special tools are necessary for a completely accurate tune-up and assembly. Using the correct special tool will help prevent damage that can be caused by the use of improper tools or improvised techniques.

### NOTE:

Be sure to use the correct part number when ordering the tool, since the part number may differ according to country.

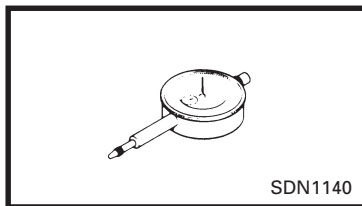


SDN1130

### FOR TUNE UP

- Sheave gauge  
P/N: YS-42421-1 (15 mm offset)

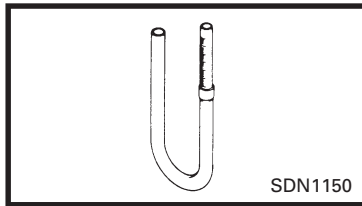
This gauge is used to measure the sheave distance and for offset adjustment.



SDN1140

- Dial gauge  
P/N: YU-03097 (for U.S.A./Canada)  
90890-03097 (for Europe)

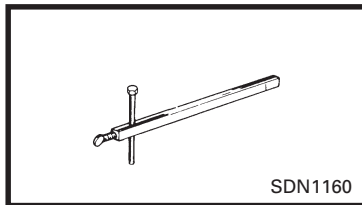
This gauge is used for run out measurement.



SDN1150

- Fuel level gauge  
P/N: YM-01312-A (for U.S.A./Canada)  
90890-01312 (for Europe)

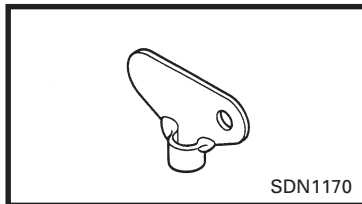
This gauge is used to measure the fuel level in the float chamber.



SDN1160

- Distance gauge  
P/N: YS-91047-3 (for U.S.A./Canada)  
90890-01702 (for Europe)

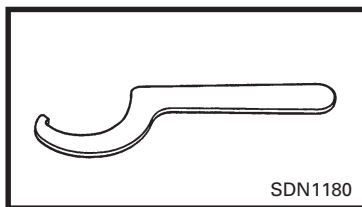
This gauge is used to measure the distance between the center of the primary sheave and the center of the secondary sheave.



SDN1170

- Adjusting screwdriver (SRX700S)  
P/N: 8DE-23703-00

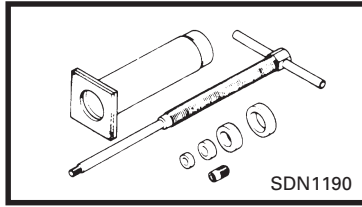
This tool is used to adjust the damping force in the front suspension.



SDN1180

- Special wrench (SRX700S)  
P/N: 4PU-28135-00

This tool is used to adjust the spring preload in the front suspension.

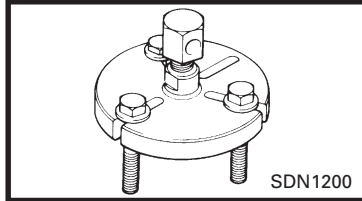


SDN1190

**FOR ENGINE SERVICE**

- Piston pin puller  
P/N: YU-01304 (for U.S.A./Canada)  
90890-01304 (for Europe)

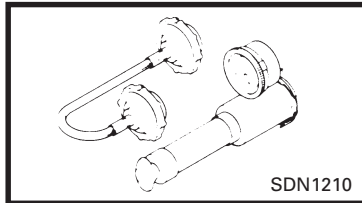
This tool is used to remove the piston pin.



SDN1200

- Rotor holding puller  
P/N: YU-33270 (for U.S.A./Canada)  
90890-01362 (for Europe)

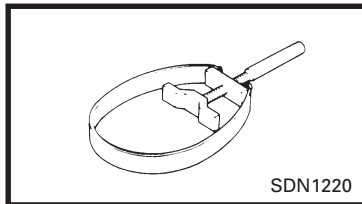
This tool is used to remove the magneto rotor.



SDN1210

- Cooling system tester  
P/N: YU-24460-01 (for U.S.A./Canada)  
90890-01325 (for Europe)

This tester is used for checking the cooling system.

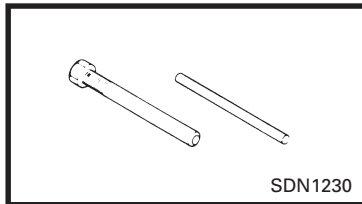


SDN1220

**FOR POWER TRAIN SERVICE**

- Primary sheave holder  
P/N: YS-01880 (for U.S.A./Canada)  
90890-01701 (for Europe)

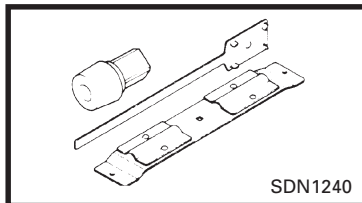
This tool is used to hold the primary sheave.



SDN1230

- Primary sheave puller (18 mm)  
P/N: YS-39962

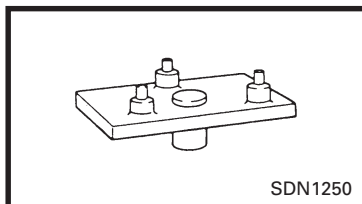
This tool is used for removing the primary sheave.



SDN1240

- Clutch spider separator  
P/N: YS-28890-B (for U.S.A./Canada)  
90890-01711 (for Europe)

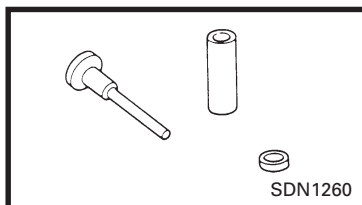
This tool is used when disassembling and assembling the primary sheave.



SDN1250

- Clutch separator adapter  
P/N: YS-34480 (for U.S.A./Canada)  
90890-01740 (for Europe)

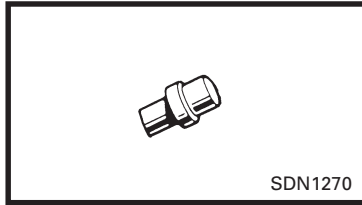
This tool is used when disassembling and assembling the primary sheave.



SDN1260

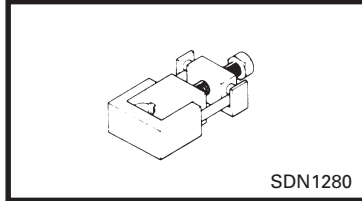
- YXR clutch bushing jig kit  
P/N: YS-39752

This tool is used for removal and installation of primary clutch weight and roller bushings.



- Clutch bushing press  
P/N: YS-42424

This tool is used for removing and installing the post bushings (primary sheave cap bush, sliding sheave bush and torque cam bush).



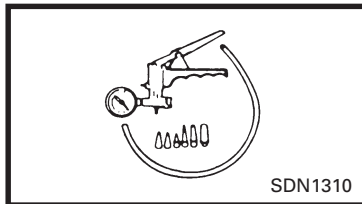
- Track clip installer  
P/N: YS-91045-A (for U.S.A./Canada)  
90890-01721 (for Europe)

This tool is used for installing the track clip.



- Angle finder  
P/N: YS-42422

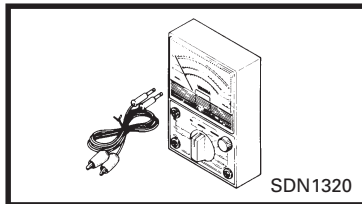
This tool is used for checking and adjusting the ski spindle camber.



#### FOR CARBURETION SERVICE

- Mity vac  
P/N: YB-35956 (for U.S.A./Canada)  
90890-06756 (for Europe)

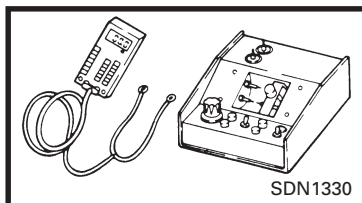
This tool is used to check the fuel pump.



#### FOR ELECTRICAL SERVICE

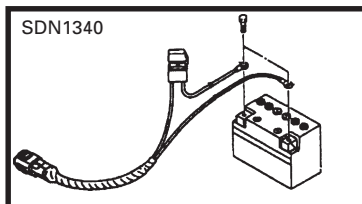
- Pocket tester  
P/N: YU-03112 (for U.S.A./Canada)  
90890-03112 (for Europe)

This instrument is necessary for checking the electrical components.



- Electro tester  
P/N: YU-33260-A (for U.S.A./Canada)  
90890-03021 (for Europe)

This instrument is invaluable for checking the electrical system.



- Yamaha power valve system (Y.P.V.S.) adjustment coupler.  
P/N: YS-43092

This tool is used for adjusting the Y.P.V.S.

## PERIODIC INSPECTION AND ADJUSTMENT

### INTRODUCTION

This chapter includes all information necessary to perform recommended inspections and adjustments. These preventive maintenance procedures, if followed, will ensure more reliable machine operation and a longer service life. In addition, the need for costly overhaul work will be greatly reduced. This information applies to machines already in service as well as new machines that are being prepared for sale. All service technicians should be familiar with this entire chapter.

### PERIODIC MAINTENANCE TABLE

Item	Remarks	Pre-operation check (daily)	Initial 1 month or first 800 km (500 mi) (40 hr)	Every
				Seasonally or 3,200 km (2,000 mi) (160 hr)
Spark plugs	Check condition. Adjust gap and clean. Replace if necessary.			Every 1,600 km (1,000 mi)
Engine oil	Check oil level.	●		
	Air bleed the oil pump if necessary.			●
Fuel	Check fuel level.	●		
Fuel filter	Check condition. Replace if necessary.			●
Fuel line	Check fuel hose for cracks or damage. Replace if necessary.			●
Oil line	Check oil hose for cracks or damage. Replace if necessary.			●
Engine coolant	Check coolant level.	●		
	Air bleed the cooling system if necessary.			●
Louvers	Check condition. Remove snow if necessary.	●		
Carburetors	Check throttle lever operation.	●		
	Adjust the jets.	Whenever operating condition (elevation/temperature) is changed		
Y.P.V.S.	Check operation. Adjust if necessary.			●
Manual starter	Check operation and rope damage. Replace if necessary.	●		
Engine stop switch	Check operation. Repair if necessary.	●		
Throttle override system	Check operation. Repair if necessary.	●		
Throttle lever	Check operation. Repair if necessary.	●		
Exhaust system	Check for leakage. Retighten or replace gasket if necessary.			●
Decarbonization	More frequently if necessary.			●
Drive V-belt guard	Check for cracks, bends or damage. Replace if necessary.	●		
Drive V-belt	Check for wear and damage. Replace if necessary.	●		
Drive track/idler wheels	Check deflection and for wear and damage. Adjust/replace if necessary.	●		

## PERIODIC MAINTENANCE TABLE

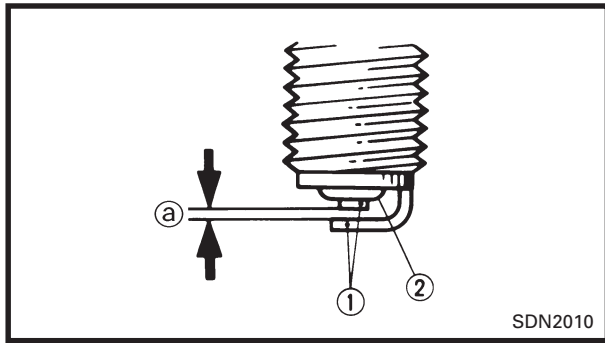


Item	Remarks	Pre-operation check (daily)	Initial 1 month or first 800 km (500 mi) (40 hr)	Every
				Seasonally or 3,200 km (2,000 mi) (160 hr)
Slide runner	Check for wear and damage.	●		
	Replace if necessary.			●
Brake/parking brake	Check operation and fluid leakage.	●		
	Adjust free play and/or replace pads if necessary.			●
	Change brake fluid.	See NOTE.		
Disk brake installation	Check for slight free play. Lubricate shaft with specified grease as required.			Every 1,600 km (1,000 mi)
Drive chain oil	Check oil level.		●	
	Change.			●
Drive chain	Check deflection. Adjust if necessary.	After the first 80 km (50 mi) and every 800 km (500 mi) thereafter		
Ski/ski runner	Check for wear and damage.	●		
	Replace if necessary.			●
Steering system	Check operation.	●		
	Adjust toe-out if necessary.			●
Lights	Check operation. Replace bulbs if necessary.	●		
Primary sheave	Check engagement and shift speed.			●
	Adjust if necessary.	Whenever operating elevation is changed		
	Check for wear and damage. Replace if necessary.			●
	Lubricate with specified grease.			●
Secondary sheave	Lubricate with specified grease.			●
	Adjust if necessary.	Whenever operating elevation is changed		
Steering column bearing	Lubricate with specified grease.			●
Ski and front suspension	Lubricate with specified grease.			●
Suspension component	Lubricate with specified grease.			●
Parking brake cable end and lever end/throttle cable end	Lubricate with specified grease.			●
	Check cable damage. Replace if necessary.			●
Shroud latches	Make sure the shroud latches are hooked.	●		
Fittings/fasteners	Check tightness. Repair if necessary.	●		
Service tools/spare parts	Check for proper placement.	●		

**NOTE:** \_\_\_\_\_

**Brake fluid replacement:**

1. When disassembling the master cylinder or caliper, replace the brake fluid. Regularly check the brake fluid level and add fluid as required.
2. On the inner parts of the master cylinder and caliper, replace the oil seals every two years.
3. Replace the brake hoses every four years, or if cracked or damaged.



**ENGINE**

**SPARK PLUGS**

1. Remove:
  - Spark plug caps
  - Spark plugs
2. Inspect:
  - Electrodes ①  
Damage/wear → Replace the spark plug.
  - Insulator color ②
3. Measure:
  - Spark plug gap ③  
Out of specification → Regap.  
Use a wire thickness gauge.

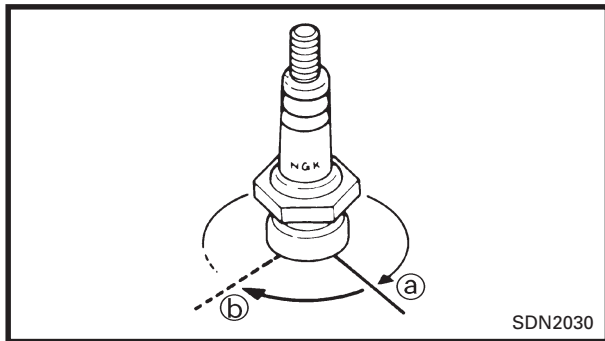
	<p><b>Spark plug gap ③:</b> 0.7 ~ 0.8 mm (0.028 ~ 0.031 in)</p>
---	---



If necessary, clean the spark plugs with a spark plug cleaner.

**Standard spark plug:**  
**BR9ECS (NGK)**

Before installing a spark plug, clean the gasket surface and spark plug surface.



4. Install:
  - Spark plugs

	<p><b>Spark plug:</b> 20 Nm (2.0 m · kg, 14 ft · lb)</p>
---	--

**NOTE:** \_\_\_\_\_  
Finger-tighten ③ the spark plug before torquing ④ it to specification.

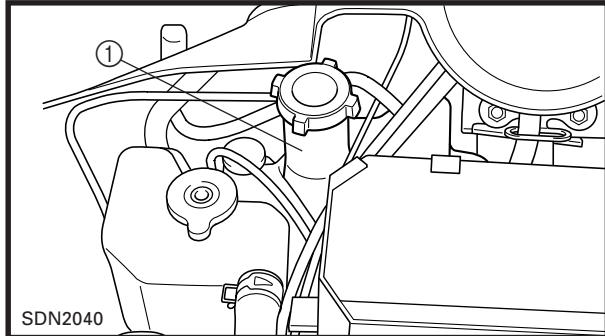
## OIL PUMP

## Air bleeding

**CAUTION:**

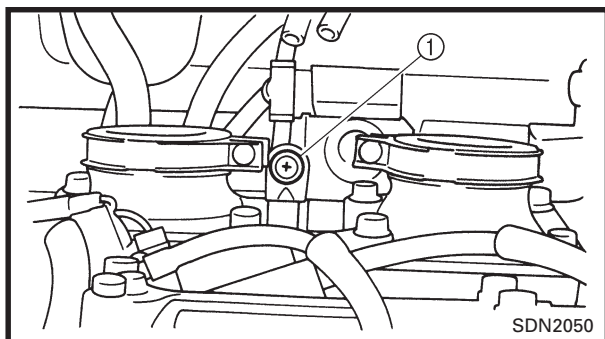
The oil pump and oil delivery line must be bled in the following cases:

- Any portion of the oil system has been disconnected.
- The machine has been turned on its side.
- The oil tank has been run empty.
- As part of the pre-delivery service.



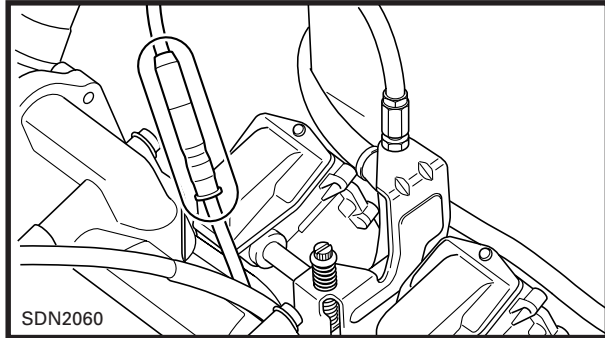
**Recommended oil:**  
YAMALUBE 2-cycle oil  
**Oil tank capacity:**  
3.3 L (2.9 Imp qt, 3.5 US qt)

1. Fill:
  - Oil tank ①
2. Remove:
  - Carburetors  
Refer to "CARBURETORS" in CHAPTER 7.
3. Place a rag under the oil pump assembly to soak up any spilled oil.
4. Disconnect:
  - Oil hose
5. Drain the oil until no more air bubbles appear in the oil hose.
6. Connect:
  - Oil hose
7. Disconnect:
  - Oil delivery hose
8. Feed the "YAMALUBE 2-cycle oil" into the oil delivery hose using an oil can for complete air bleeding.
9. Connect:
  - Oil delivery hose
10. Remove:
  - Bleed screw ①
  - Gasket (bleed screw)
11. Drain the oil until no more air bubbles appear from the bleed hole.
12. Inspect:
  - Gasket (bleed screw)  
Damage/wear → Replace.



13. Install:
  - Gasket (bleed screw)
  - Bleed screw
14. Install:
  - Carburetors

Refer to "CARBURETORS" in CHAPTER 7.

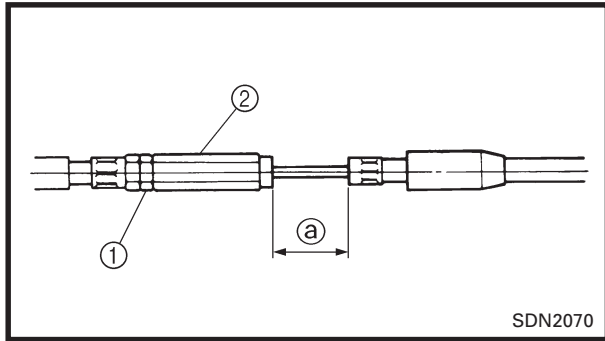


**Cable adjustment**

**NOTE:** Before adjusting the oil pump cable, the throttle cable distance should be adjusted.

**Adjustment steps:**

- Slide back the adjuster cover.
- Loosen the locknut ①.
- Turn the adjuster ② in or out until the specified distance is obtained.



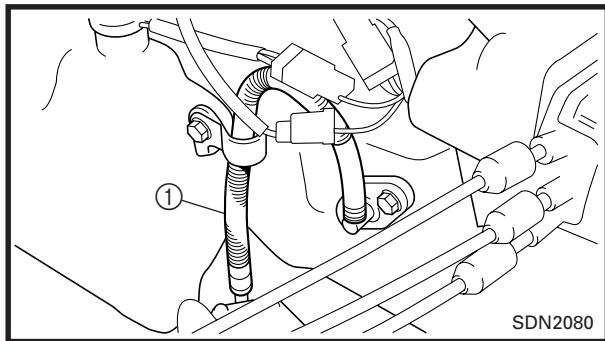


**Distance ③:**  
20 ~ 22 mm (0.79 ~ 0.86 in)

Turning in → Distance ③ is increased.

Turning out → Distance ③ is decreased.

- Tighten the locknut and push in the adjuster cover.



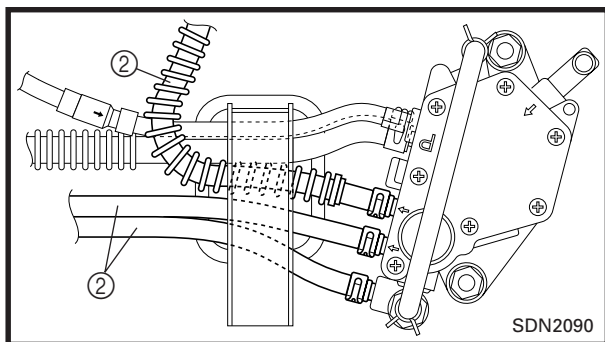
**FUEL LINE INSPECTION**

1. Remove:
  - Intake silencer

Refer to "FUEL PUMP" in CHAPTER 7.
2. Inspect:
  - Fuel hose ①
  - Fuel delivery hoses ②

Cracks/damage → Replace.
3. Install:
  - Intake silencer

Refer to "FUEL PUMP" in CHAPTER 7.





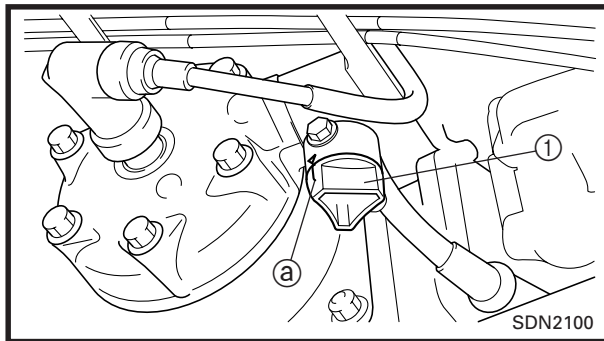
**COOLING SYSTEM****Coolant replacement****NOTE:**

The coolant should be changed at least every season.

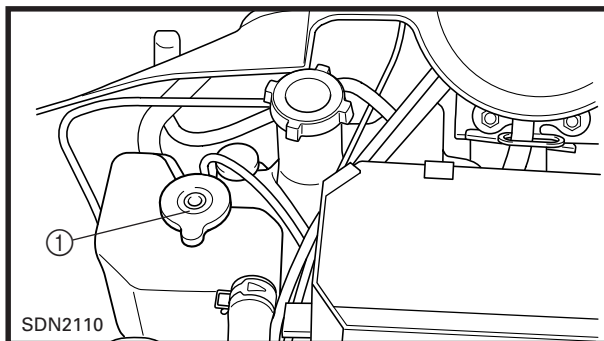
1. Place the machine on a level surface.

2. Remove:

- Exhaust pipe #1 (L), #2, #3 (R)
  - Exhaust pipe joint #1 (L), #2, #3 (R)
- Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.



3. Make sure that the carburetor heating knob ① is turned to "ON" ②.

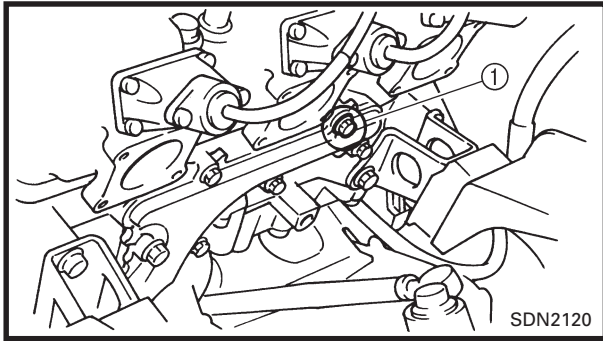


4. Remove:

- Coolant filler cap ①

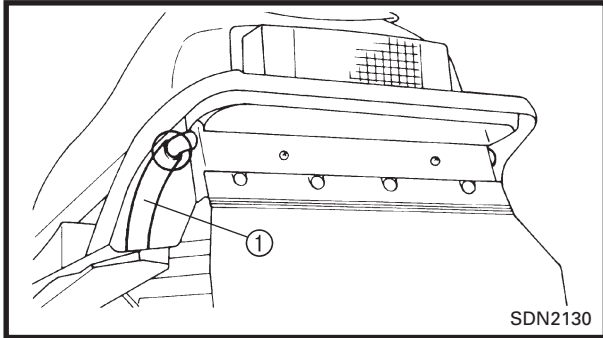
**⚠ WARNING**

Do not remove the coolant filler cap ① when the engine is hot. Pressurized scalding hot fluid and steam may be blown out, which could cause serious injury. When the engine has cooled, place a thick rag or a towel over the coolant filler cap. Slowly turn the cap counterclockwise until it stop. This allows any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning it counterclockwise to remove it.



5. Place an open container under the coolant drain bolt ①.
6. Remove:
  - Coolant drain bolt
  - Gasket (coolant drain bolt)
7. Drain the coolant.

**NOTE:** \_\_\_\_\_  
Lift up the tail of the machine to drain the coolant.



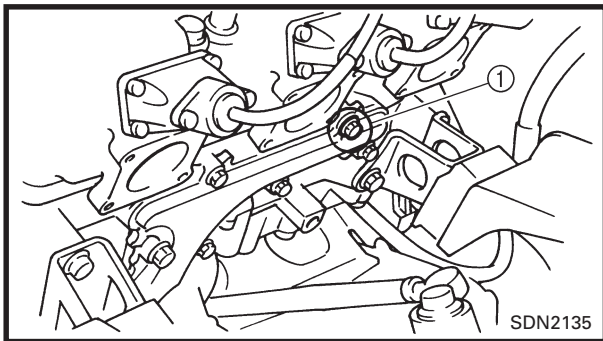
8. Disconnect:
  - Coolant hose 6 ①
9. Drain the coolant.

**NOTE:** \_\_\_\_\_  
Lift up the tail of the machine to drain the coolant completely.

**⚠ WARNING** \_\_\_\_\_

**Coolant is poisonous. It is harmful or fatal if swallowed.**

- If coolant is swallowed, induce vomiting immediately and get immediate medical attention.
- If coolant splashes in your eyes, thoroughly wash them with water and consult a doctor.
- If coolant splashes on your skin or clothes, quickly wash it away with soap and water.



10. Inspect:
  - Gasket (coolant drain bolt)  
Damage → Replace.
11. Install:
  - Gasket
  - Coolant drain bolt ①

	<p><b>Coolant drain bolt ①:</b> 13 Nm (1.3 m • kg, 9.4 ft • lb)</p>
---	---

12. Connect:
  - Coolant hose 6
13. Install:
  - Exhaust pipe joint #1 (L), #2, #3 (R)
  - Exhaust pipe #1 (L), #2, #3 (R)  
Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.

	<p><b>Bolt (exhaust joint):</b> 15 Nm (1.5 m • kg, 11 ft • lb)</p>
---	--

14. Fill:

- Cooling system



**Recommended coolant:**  
 High quality ethylene glycol  
 antifreeze containing  
 corrosion inhibitors  
**Coolant : water mixed ratio:**  
 3 : 2 (60% : 40%)  
**Total amount:**  
 5.6 L (4.9 Imp qt, 5.9 US qt)

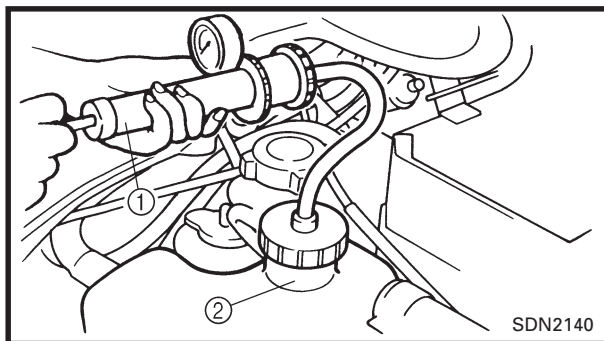
**CAUTION:**

- **Hard water or salt water is harmful to engine parts. If soft water is not available, use boiled or distilled water.**
- **Do not use water containing impurities or oil.**

15. Bleed the air from the cooling system.

16. Inspect:

- Cooling system  
 Decrease of pressure (leaks) → Repair as required.



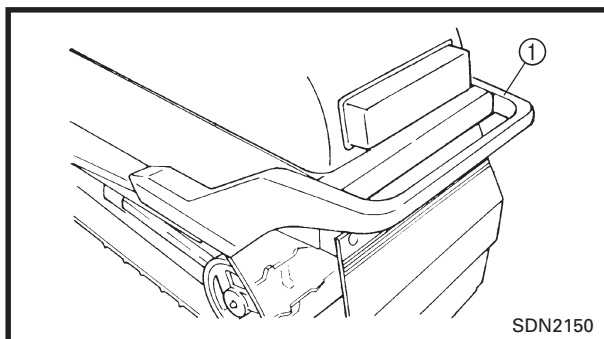
**Inspection steps:**

- Attach the cooling system tester ① to the coolant filler ②.



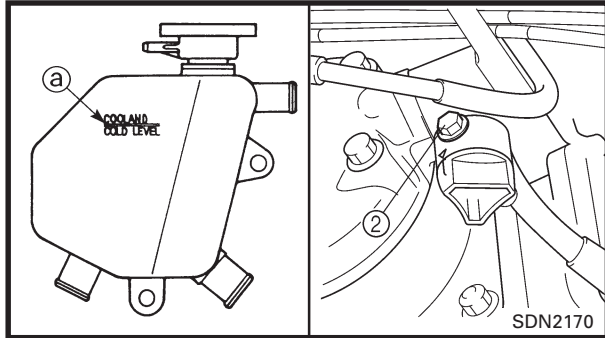
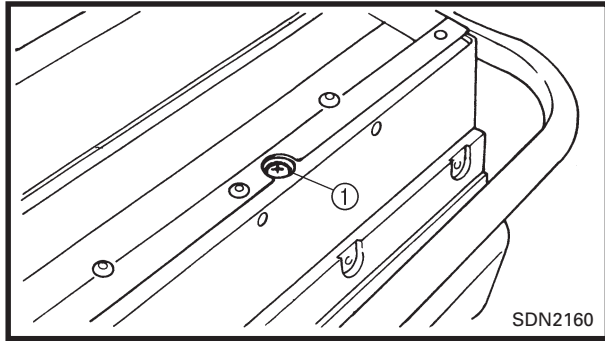
**Cooling system tester:**  
 90890-01325, YU-24460-01

- Apply 100 ~ 120 kPa (1.0 ~ 1.2 kg/cm<sup>2</sup>, 14 ~ 17 psi).
- Measure the pressure with the gauge.



**Air bleeding**

1. Remove:
  - Seat
  - Rear bumper cover ①
2. Bleed air from the cooling system.




**Air bleeding steps:**

- Lift up the tail of the machine.
- Remove the bleed screw ① on the heat exchanger.
- While slowly adding coolant to the coolant reservoir tank, drain the coolant until no more air bubbles appear.
- Tighten the bleed screw.

	<p><b>Bleed screw ①:</b> 4 Nm (0.4 m • kg, 2.9 ft • lb)</p>
---	---

- Add coolant to the coolant cold level ①.
- Loosen the bleed bolt ② on the outlet water jacket joint.
- Drain the coolant until no more air bubbles appear.
- Tighten the bleed bolt.

	<p><b>Bleed bolt ②:</b> 4 Nm (0.4 m • kg, 2.9 ft • lb)</p>
---	--

- Install the coolant filler cap.  
Apply and lock the parking brake. Start the engine and run it at approximately 2,500 ~ 3,000 r/min until the thermostat opens and the coolant circulates (approximately 3 ~ 5 minutes). The rear heat exchanger will be warm to the touch.

**⚠ WARNING**

**To avoid severe injury or death:**

- **Make sure the machine is securely supported with a suitable stand.**
- **Do not exceed 3,000 r/min. Drive line damage and excessive V-belt wear could occur, or the machine could unexpectedly move forward if the clutch engages.**
- **Operate the engine only in a well-ventilated area.**

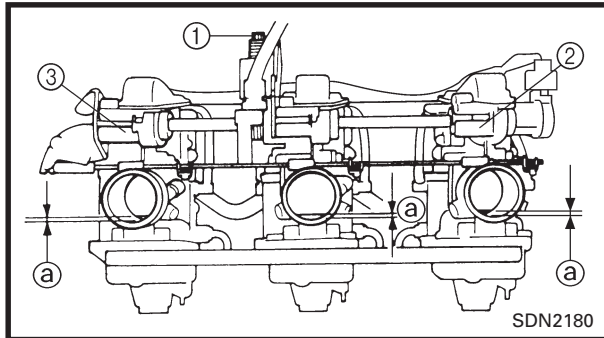
- Remove the coolant filler cap and bleed the cooling system again, as described above. No air bubbles → OK.
- Add coolant to the specified level.

**3. Install:**

- Rear bumper cover
- Seat

## CARBURETOR SYNCHRONIZATION

1. Remove:
  - Carburetors  
Refer to "CARBURETORS" in CHAPTER 7.
2. Adjust:
  - Carburetor synchronization

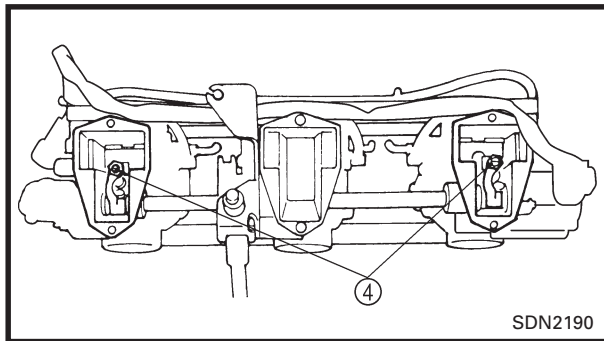


### Adjustment steps:

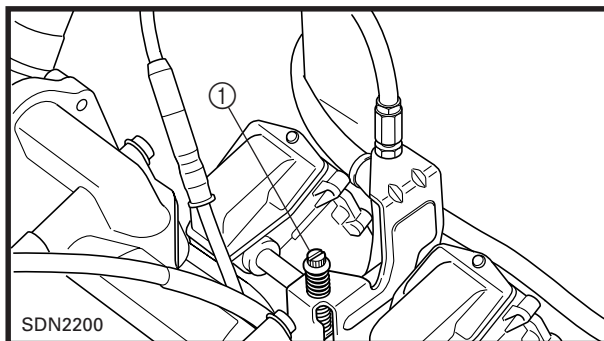
- Turn the throttle stop screw ① of carburetor #2 until the specified throttle valve height ② is obtained.



- Adjust the throttle valve height ② on carburetor #1 ③ and #3 ④ with the adjusting screw ④.
- Move the throttle lever 2 ~ 3 times.
- Make sure that all of the carburetor throttle valves are at the same height.



3. Install:
  - Carburetors  
Refer to "CARBURETORS" in CHAPTER 7.



## ENGINE IDLE SPEED ADJUSTMENT

1. Adjust:
  - Engine idle speed

### Adjustment steps:

- Start the engine and let it warm up.
- Turn the throttle stop screw ① in or out until the specified engine idle speed is obtained.

**Turning in → Idle speed is increased.**

**Turning out → Idle speed is decreased.**



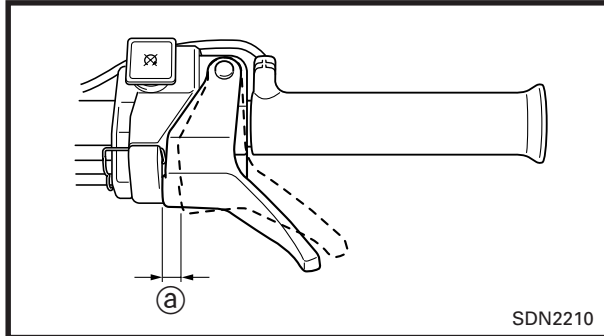
### NOTE:

After adjusting the engine idle speed, the throttle cable free play should be adjusted.

## THROTTLE CABLE FREEPLAY ADJUSTMENT

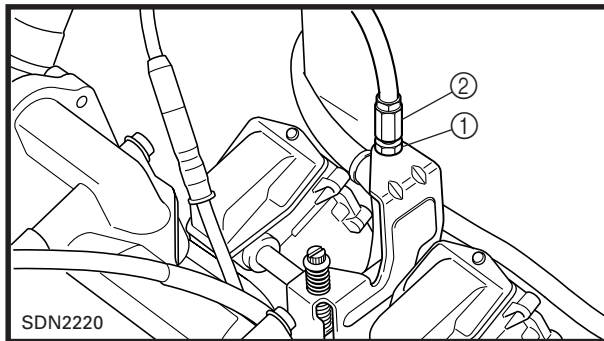
### NOTE:

- Before adjusting the throttle cable freeplay, the engine idle speed should be adjusted.
- Adjust the throttle cable freeplay while the cable is in the cable guide.



### 1. Measure:

- Throttle cable freeplay ①
- Out of specification → Adjust.



### 2. Adjust:

- Throttle cable freeplay

### Adjustment steps:

- Loosen the locknut ①.
- Turn the adjusting nut ② in or out until the specified freeplay is obtained.

**Turning in → Freeplay is increased.**

**Turning out → Freeplay is decreased.**

- Tighten the locknut.

### NOTE:

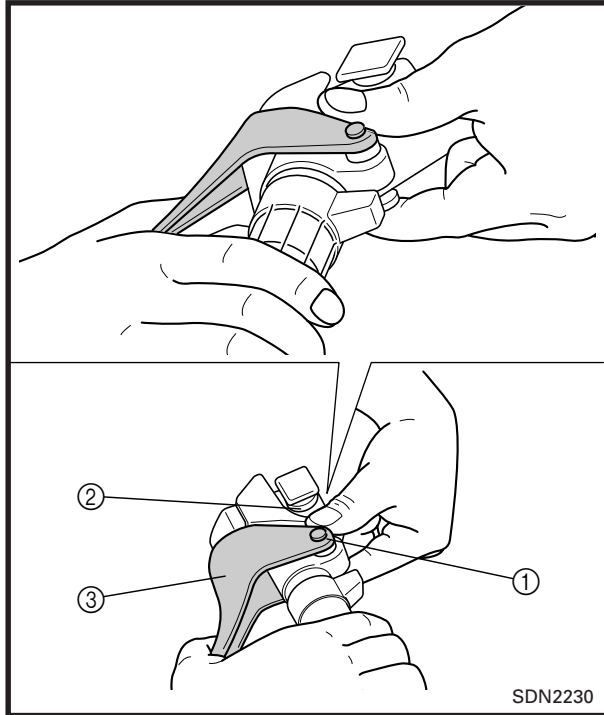
After adjusting the freeplay, turn the handlebar to right and left, and make sure that the engine idling does not run faster.

## THROTTLE OVERRIDE SYSTEM (T.O.R.S.) CHECK

### **⚠ WARNING**

When checking T.O.R.S.:

- Be sure the parking brake is applied.
- Be sure the throttle lever moves smoothly.
- Do not run the engine up to the clutch engagement speed. Otherwise, the machine could start moving forward unexpectedly, which could cause an accident.



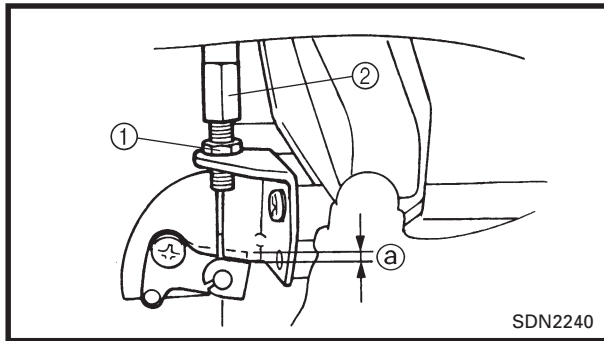
1. Start the engine.
2. Hold the pivot point of the throttle lever away from the throttle switch by putting your thumb (above) and forefinger (below) between the throttle lever pivot ① and stop switch housing ②.

While holding as described above, press the throttle lever ③ gradually.

The T.O.R.S. will operate and the engine should run between 2,800 and 3,000 r/min.

### **⚠ WARNING**

If the engine does not run between 2,800 and 3,000 r/min, stop the engine by turning the main switch to the "OFF" position and check the electrical system.



**STARTER (CHOKE) CABLE FREEPLAY ADJUSTMENT**

1. Measure:

- Starter cable freeplay (a)  
Out of specification → Adjust.

	<b>Starter cable freeplay (a):</b> 0.5 ~ 1.5 mm (0.02 ~ 0.06 in)
---	---

2. Adjust:

- Starter cable freeplay

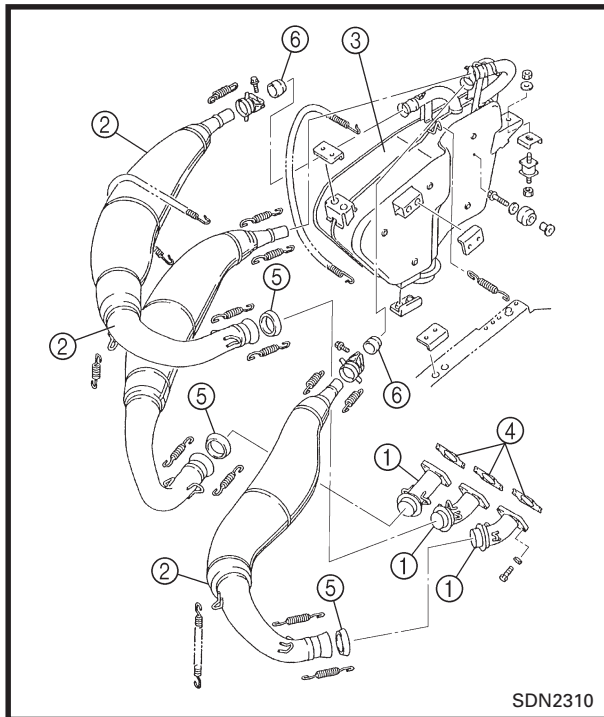
**Adjustment steps:**

- Loosen the locknut (1).
- Turn the adjusting nut (2) in or out until the specified freeplay is obtained.

**Turning in → Freeplay is increased.**

**Turning out → Freeplay is decreased.**

- Tighten the locknut.



**EXHAUST SYSTEM INSPECTION**

1. Open the shroud.

2. Remove:


- Springs  
Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.

3. Inspect:

- Exhaust joints (1)
- Exhaust pipes (2)
- Exhaust silencer (3)  
Cracks/damage → Replace.
- Exhaust gaskets (4)
- Exhaust gaskets (5)
- Exhaust gaskets (6)  
Exhaust gas leaks → Replace.

4. Check:

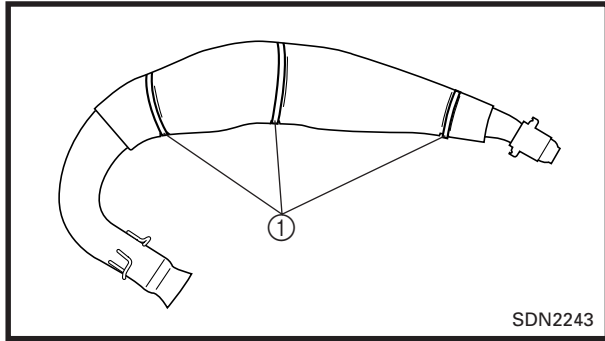
- Tightening torque

	<b>Bolt (exhaust silencer joint):</b> 13 Nm (1.3 m • kg, 9.4 ft • lb)
	<b>Nut (exhaust silencer):</b> 16 Nm (1.6 m • kg, 11 ft • lb)
	<b>Bolt (exhaust pipe joint):</b> 15 Nm (1.5 m • kg, 11 ft • lb)

5. Install:

- Springs  
Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.



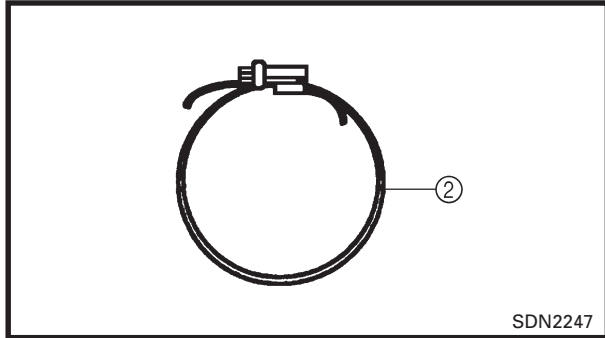


## HEAT SHIELD CLAMP REPLACEMENT

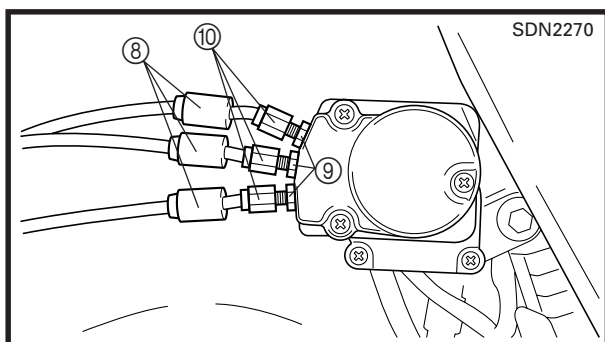
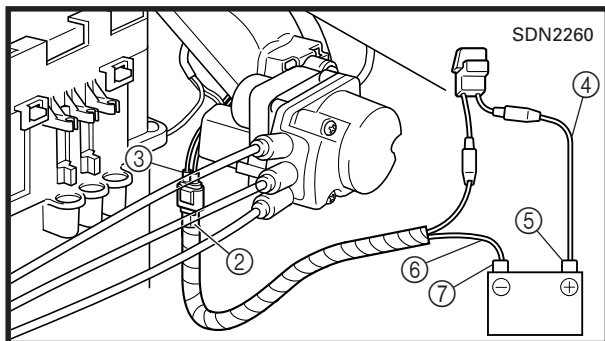
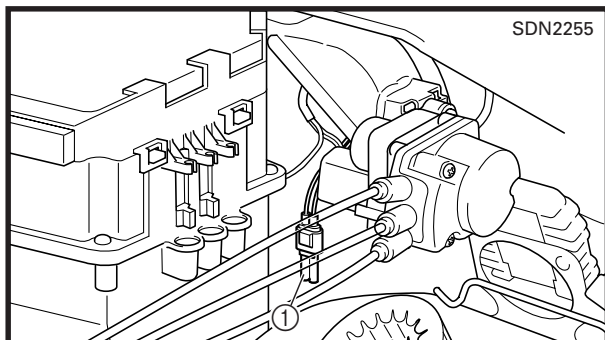
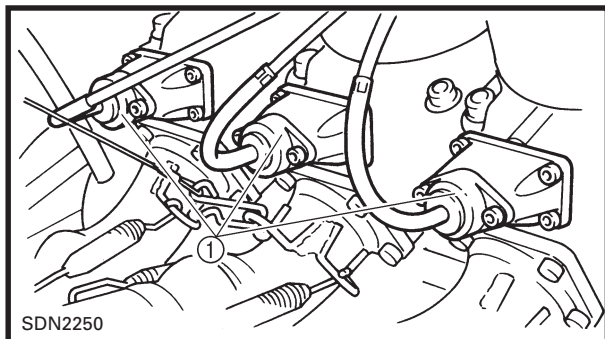
Clamps on the exhaust pipe heat shields may become loose and cause a rattling noise, which is due to the deformation of the heat shields. These clamps are not adjustable and must be replaced when they become loose.

When replacing the clamps, use an adjustable clamp from the list below.

- ① Clamps
- ② Adjustable clamp



Part number	Size	Remarks
90450-99031	ø 90-110	For engine side
90450-99043	ø 110-130	For center
90450-60011	ø 50-70	For exhaust si-lencer side



## YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) ADJUSTMENT

### ⚠ WARNING

When adjusting the valve clearance, do not operate the engine.

1. Remove:
  - Y.P.V.S. valve assembly ①
2. Adjust:
  - Y.P.V.S.

#### Adjustment steps:

- Remove the Y.P.V.S. check coupler cap ①.
- Connect the Y.P.V.S. adjustment coupler ② to the Y.P.V.S. check coupler ③.
- Connect the Y.P.V.S. adjustment coupler leads as follows.

Y.P.V.S. (+) adjustment coupler lead ④ →

Battery (+) terminal ⑤

Y.P.V.S. (-) adjustment coupler lead ⑥ →

Battery (-) terminal ⑦



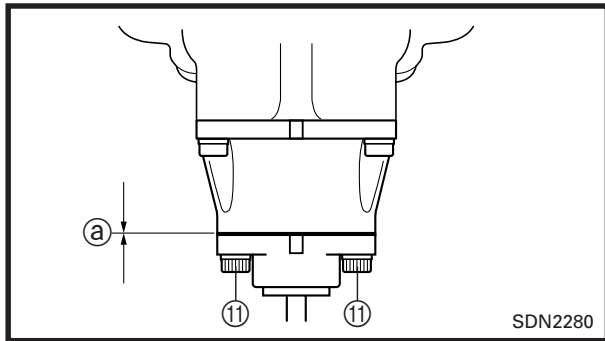
**Y.P.V.S. adjustment coupler:**  
YS-43092

#### NOTE:

- When battery power is applied, the Y.P.V.S. valve should fully open.
- If the valve does not fully open, check the Servo motor. Refer to "YAMAHA POWER VALVE SYSTEM (Y.P.V.S.)" in CHAPTER 8.

- Slide back the adjuster covers ⑧.
- Loosen the locknuts ⑨.
- Turn the adjusting nuts ⑩ in or out until the specified clearance is obtained.

# YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) ADJUSTMENT/ YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) PRE-SEASON CHECKS



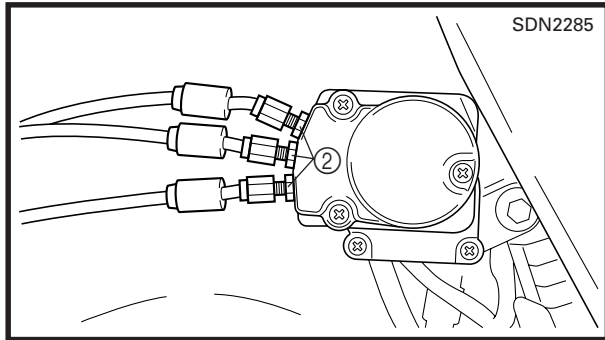
- Loosen the bolts ⑪.

**Y.P.V.S. valve clearance ①:**  
2.0 ~ 3.5 mm (0.08 ~ 0.14 in)

Turning in → Clearance ① is increased.

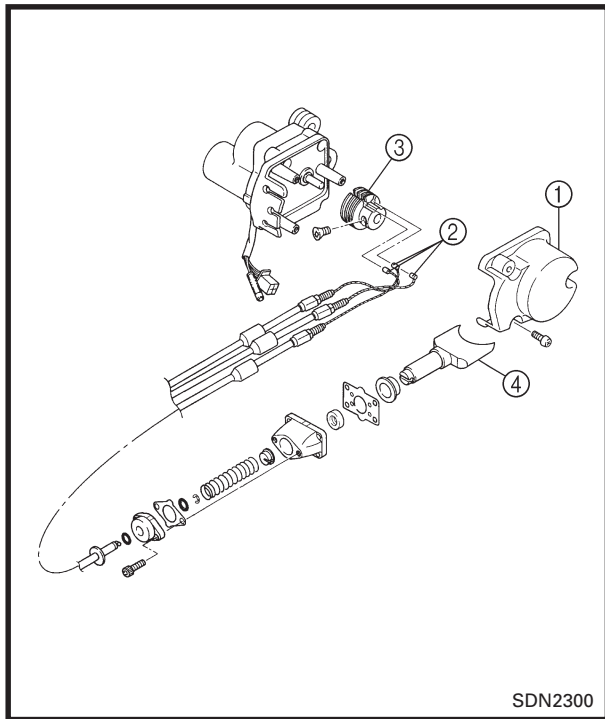
Turning out → Clearance ① is decreased.

- Tighten the bolts, locknuts ② and push in the adjuster cover.



**Y.P.V.S. valve housing bolt:**  
8 Nm (0.8 m · kg, 5.8 ft · lb)  
**Locknut ②:**  
7 Nm (0.7 m · kg, 5.1 ft · lb)

- Disconnect the Y.P.V.S. adjustment coupler from the Y.P.V.S. check coupler.
- Install the Y.P.V.S. check coupler cap.

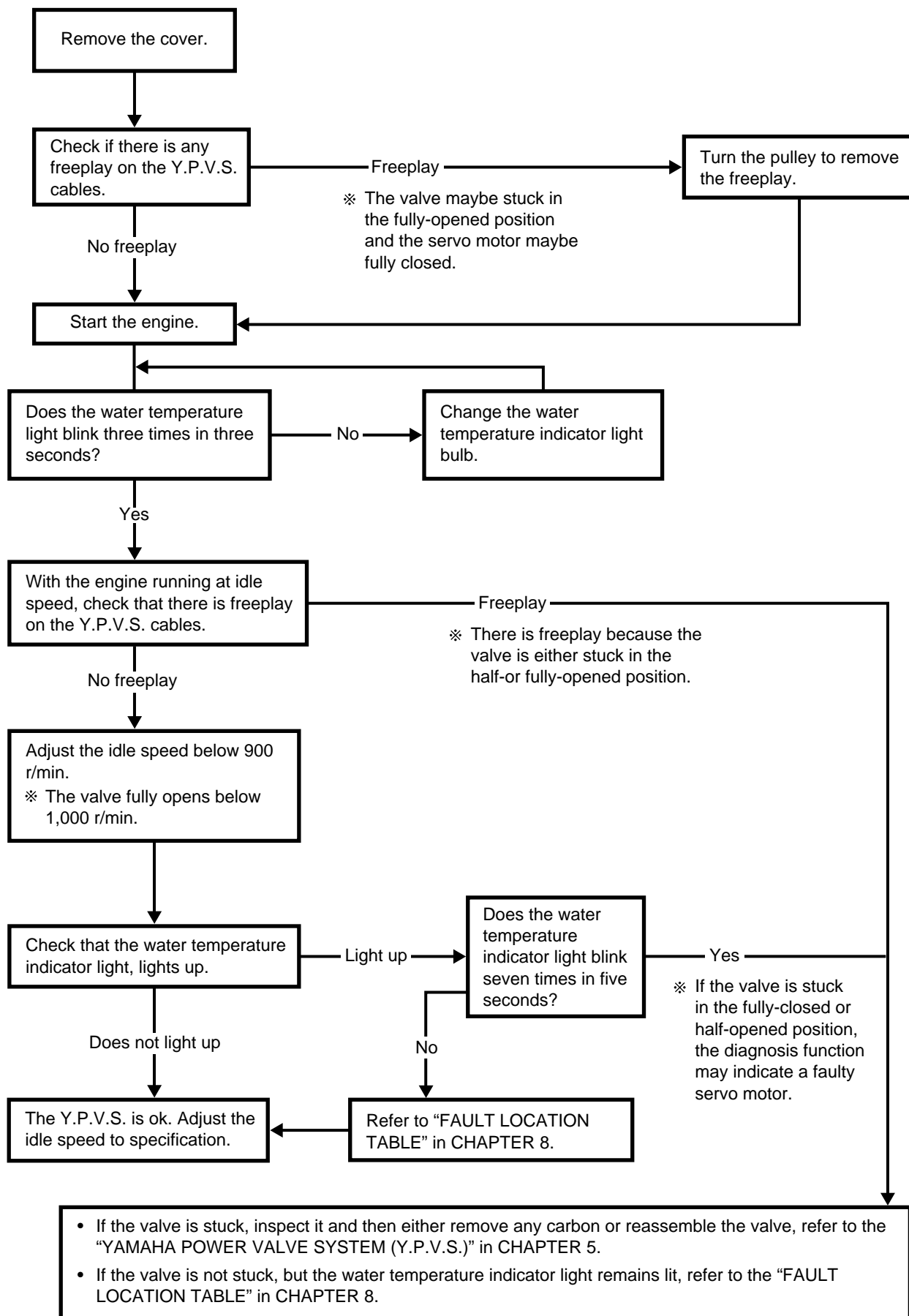


## YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) PRE-SEASON CHECKS

There may be excessive amounts of carbon on the Y.P.V.S. valve which will cause the valve to stick to the cylinder. In this case, the valve will not operate. Therefore, be sure to check the Y.P.V.S. as follows.

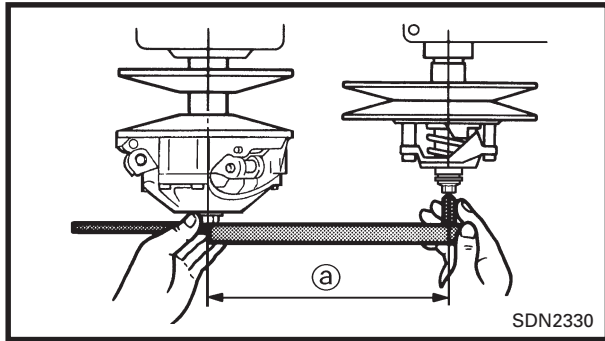
- ① Cover
- ② Cables
- ③ Puller
- ④ Valve

# YAMAHA POWER VALVE SYSTEM (Y.P.V.S.) PRE-SEASON CHECKS




## POWER TRAIN SHEAVE DISTANCE AND OFFSET ADJUSTMENT

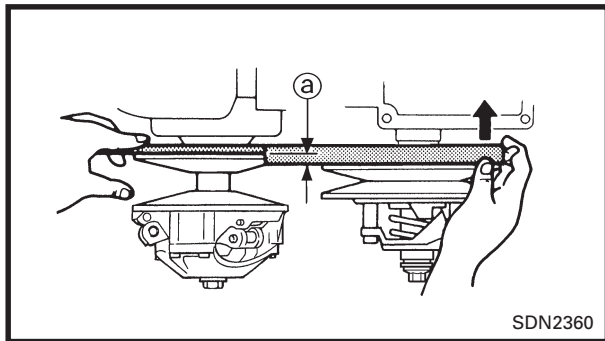
1. Open the shroud
2. Remove:
  - Drive V-belt guard
  - Drive V-belt
  
3. Remove:
  - Exhaust pipe #1 (L), #2, #3 (R)  
Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.
4. Remove:
  - Carburetors  
Refer to "CARBURETORS" in CHAPTER 7.



5. Measure:
  - Sheave distance @  
Use the sheave gauge.  
Out of specification → Adjust.

	<b>Sheave distance @:</b> 267 ~ 270 mm (10.52 ~ 10.62 in)
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	<b>Distance gauge:</b> 90890-01702, YS-91047-3
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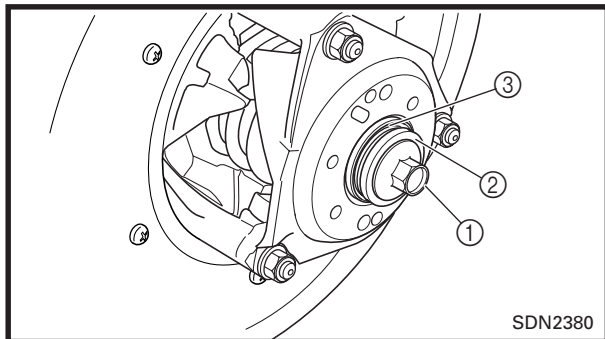
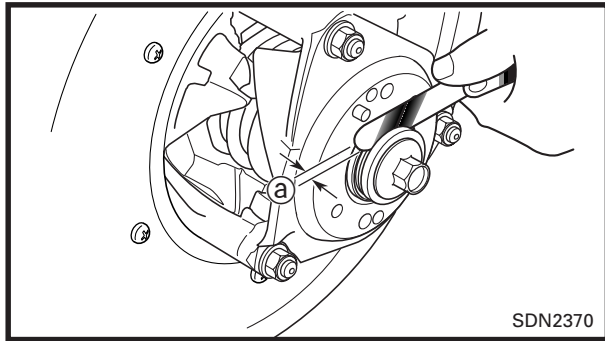
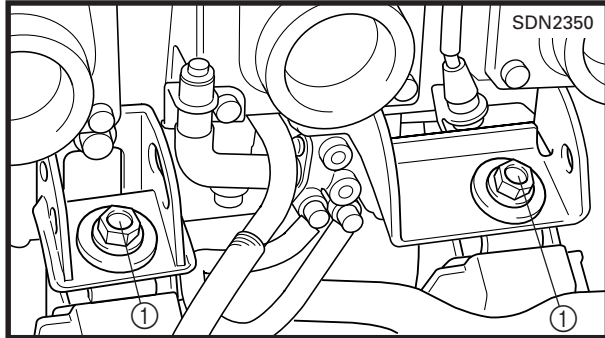
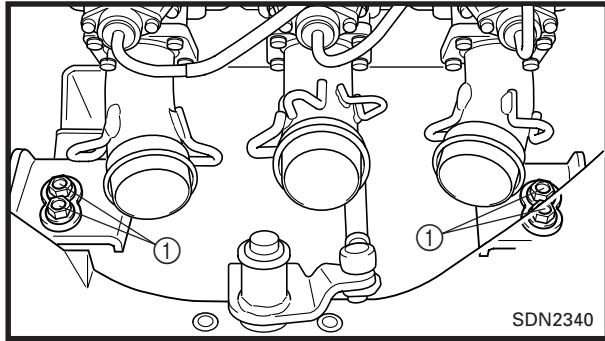


6. Measure:
  - Sheave offset @  
Use the sheave gauge.  
Out of specification → Adjust.

	<b>Sheave offset: @</b> 13.5 ~ 16.5 mm (0.53 ~ 0.64 in)
---	--

	<b>Sheave gauge:</b> YS-42421-1 (15 mm offset)
---	---

# SHEAVE DISTANCE AND OFFSET ADJUSTMENT



7. Adjust:
- Sheave distance

**Adjustment steps:**

- Loosen the engine mounting bolts.
- Adjust the position of the engine so that the sheave distance is within the specification.
- Tighten the engine mounting bolts.

**Mounting bolt ①:**  
**50 Nm (5.0 m · kg, 36 ft · lb)**

8. Measure:
- Secondary sheave freeplay (clearance) (a)  
 Use a feeler gauge.  
 Out of specification → Adjust.

**Secondary sheave freeplay (clearance) (a):**  
**1.0 ~ 2.0 mm (0.04 ~ 0.08 in)**

9. Adjust:
- Secondary sheave freeplay (clearance)

**Adjustment steps:**

- Apply the brake to lock the secondary sheave.
- Remove the bolt ① and washer ②.
- Adjust the secondary sheave freeplay (clearance) by adding or removing a shim(s) ③.

**Shim size:**

Part number	Thickness
90201-222F0	0.5 mm (0.02 in)
90201-225A4	1.0 mm (0.04 in)

10. Install:
- Carburetors  
 Refer to "CARBURETORS" in CHAPTER 7.
11. Install:
- Exhaust pipe #1 (L), #2, #3 (R)  
 Refer to "EXHAUST ASSEMBLY" in CHAPTER 5.



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