XS650E

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Supplementary

FOR XS650E MODELS AFTER ENGINE SERIAL NO. 2F0-006501

FOREWORD

This Supplementary Manual for XS650E has been published to supplement the Service Manual for the XS650E (LIT-1 1616-00-76), and provides updated information for the XS650E model as well as new data concerning the XS650E. For complete information on service procedures it is necessary to use this Supplementary Manual together with the Service Manual for the XS650E (LIT-1 1616-00-76).

NOTE:

This Supplementary Manual contains special information regarding periodic maintenance to the emissions control system for the XS650E. Please read this material carefully.

SERVICE DEPT.
INTERNATIONAL DIVISION
YAMAHA MOTOR CO., LTD.

Page numbers shown in brackets correspond to page numbers of the XS650E (LIT-1 1616-00-76) Service Manual.

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2-2. Maintenance Interval Charts

A. PERIODIC MAINTENANCE EMISSION CONTROL SYSTEM

NO.	ITEM	REMARKS	INITIAL BREAK-IN		THERE AFTER EVERY	
			1,000 km or 1 month (600 mi)	5,000 km or 7 months (3,000 mi)	4,000 km or 6 months (2,500 mi)	8,000 km or 12 months (5,000 mi)
1	Cam Chain	Check and adjust chain tension	○			○
2	Valve Clearance	Check and adjust valve clearance when engine is cold.	○	○		○
3	Contact Breaker Points	Check condition. Adjust point gap. Replace if necessary.	○	○	○	
4	Ignition Timing	Check and adjust ignition timing.	○	○	○	
5	Spark Plugs	Check condition. Adjust gap. Replace if necessary.		○		○
6	Crankcase Ventilation System	Check ventilation hose for cracks or damage. Replace if necessary.		○		○
7	Fuel Hose	Check fuel hose for cracks or damage. Replace if necessary.		○		○
8	Exhaust System	Check for leakage. Ratighten as necessary. Replace gasket(s) if necessary.	○	○	○	
9	Carburetor Synchronization	Adjust synchronization of carburetors.	○	○	○	
10	Idle Speed	Check and adjust engine idle speed. Adjust cable free play.	○	○	○	

B. GENERAL MAINTENANCE/LUBRICATION

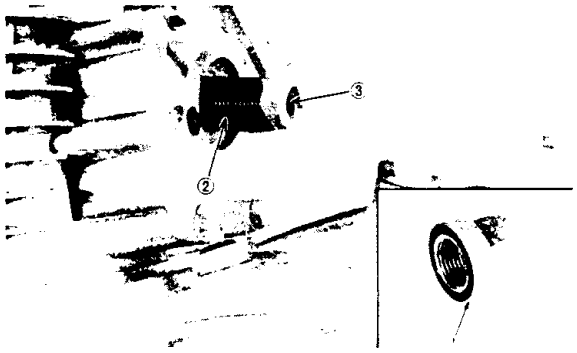
NO.	ITEM	REMARKS	TYPE	INITIAL BREAK-IN		THERE AFTER EVERY		
				1,000 km or 1 month (600 mi)	5,000 km or 7 months (3,000 mi)	4,000 km or 6 months (2,500 mi)	8,000 km or 12 months (5,000 mi)	16,000 km or 24 months (10,000 mi)
1.	Engine Oil	Warm-up engine before draining	Yamalube 4-cycle oil or SAE 20W/40 "SE" motor oil	○	○	○		
2	Oil Filter	Clean element in solvent	–		○		○	
3	Air Filter	Dry type filter. Clean with compressed air.	–		○		○	
4	Brake System	Adjust free play. Replace shoes and/or pads if necessary	–	○	○	0)		
5	Clutch	Adjust free play	–	○	○	0)		
6	Drive Chain	Apply chain lube thoroughly	Yamaha chain and cable lube or 10W/30 motor oil	CHECK CHAIN TENSION AND LUBE EVERY 500 km 300 mi.				
7	Control and Meter Cable	Apply cable lube thoroughly	Yamaha chain and cable lube or 10W/30 motor oil	○	○	○		
8	Rear Arm Pivot Shaft	Apply until new grease shows	Medium weight wheel bearing grease			○		
9	Brake pedal and change pedal shaft	Apply lightly	Yamaha chain and cable lube or 10W/30 motor oil		○	○		
10	Center and Side Stand Pivots	Apply lightly	Yamaha chain and cable lube or 10W/30 motor oil		○	○		
11	Front Fork Oil	Drain completely. Refill to specification	Yamaha fork oil 10Wt or equivalent					○
12	Steering Ball Bearing and Races	Check bearings assembly for looseness, Moderately repack every 16,000 km (10,000 mi)	Medium weight wheel bearing grease.		○	○		Repack
13	Wheel Bearings	Check bearings for smooth rotation. Moderately repack every 16,000 km (10,000 mi)	Medium weight wheel bearing grease		○	○		Repack
14	Battery	Check specific gravity. Check breather pipe for proper operation.	–		○	○		
15	A.C. Generator	Replace generator brushes Replace at initial 9,000 km (5,500 mi)	–				○	

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E. Cam chain adjustment

Check/Adjust the cam chain tension as follows:

1. Remove the cap nut.
2. Turn the left end of the crankshaft counterclockwise. As the crankshaft is turning, check to see that the cam chain adjuster push rod is flush with the end of the bolt. If not, turn the adjuster bolt until the push rod is flush.
3. Reinstall the cap nut. The cap nut acts as a lock nut for the adjuster.



1. Cap nut 2. Adjuster bolt 3. Push rod

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B. Air filters

2. Cleaning method

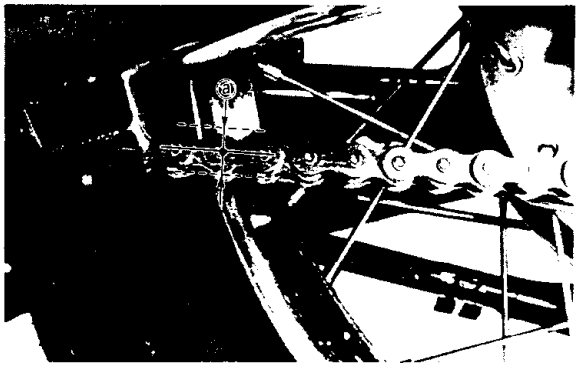
c. The air filter element should be cleaned every 8,000 km (5,000 mi). It should be cleaned more often if the machine is operated in extremely dusty areas.

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G. Drive chain

1. Tension check

Inspect the drive chain with both tires touching the ground. Check the tension halfway between drive and driven sprockets. The normal vertical deflection is approximately 20 ~ 30 mm (0.79 ~ 1.18 in)

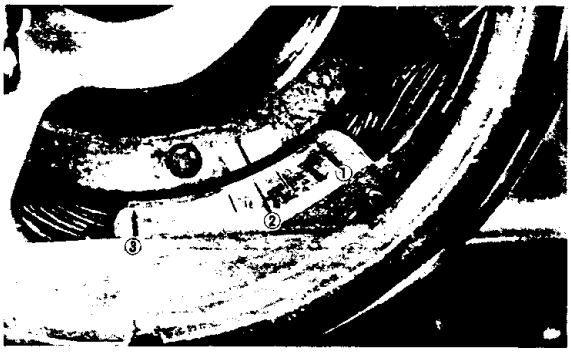


a. 20~30 mm (0.79~1.18 in)

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C. Ignition timing

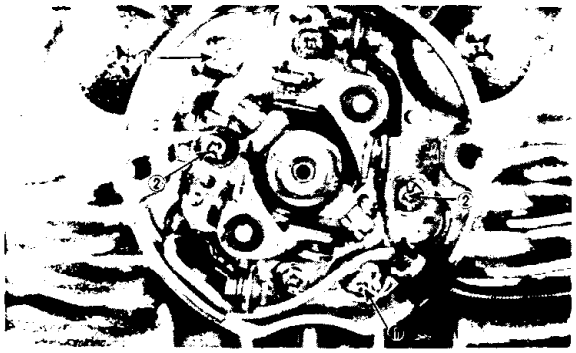
1. Point gap must be set before setting timing.
2. Ignition timing is checked with a timing light by observing the position of the stationary marks stamped on the stator and the pointer on the generator rotor.



1. Top dead center
2. 15° BTDC/1,200 r/min
3. Advanced mark

3. Connect timing light to right (left) cylinder spark plug lead wire. Ignition timing of right cylinder must be set first.
4. Start the engine and keep the engine speed as specified on the label. Use a tachometer for checking.
5. The rotor pointer should line up the "F" stamped timing mark on the stator at a specified engine speed. If it does not align, loosen the two breaker backing plate screws (breaker assembly holding screws for left cylinder) and move the complete backing plate (breaker assembly for left cylinder) until the point marks align.

6. Retighten screws. Check timing again for right cylinder.
7. Repeat procedure (steps 2-6) for left cylinder.



1. Right cylinder timing adjustment
2. Left cylinder timing adjustment

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F. Spark plug

Check electrode condition and wear, insulator color and electrode gap. Use a wire gauge for adjusting the plug gap. If the electrodes become too worn, replace it. When installing the plug, always clean the gasket surface, wipe off any grime that might be present on the surface of the spark plug, and torque the spark plug properly.

Standard spark plug:
N-7Y (CHAMPION) or BP7ES(NGK)
Spark plug gap:
0.7 ~ 0.8 mm (0.028 ~ 0.031 in)
Spark plug tightening torque:
2.0 m-kg (14.5 ft-lb)