



Maintenance Training Course



V ENGINE – 4.2L OFFSHORE

Syllabus



PROGRAM: Yamaha Marine Maintenance Certification Program
COURSE: Maintenance Training Course – 4.2L Offshore – V-ENGINE
PART NUMBER: LIT-300BM-NT-00 (textbook)
ISSUE DATE: 2020

©2020 YAMAHA MOTOR CORPORATION, U.S.A. ALL RIGHTS RESERVED.

This document is the property of and contains proprietary information owned by Yamaha Motor Corporation, U.S.A., its subsidiaries, and/or its subcontractors and suppliers. No permission is granted to publish, use, reproduce, transmit, or disclose to another, any information contained in this document, in whole or in part, without the prior written consent of said Corporation or subsidiary.

Produced by Yamaha Motor Corporation, U.S.A., Marine Group.

1270 Chastain Rd NW
Kennesaw, GA 30144

Printed in the United States.

Learning Goals

Students will be able to:

- use *F225B LF225B F250B LF250B F300A LF300A Service Manual* and related resources/tools
- use the maintenance charts in *F225B LF225B F250B LF250B F300A LF300A Service Manual - LIT-18616-03-79*
- inspect and replace marine batteries
- grease points / cowling and tilt operation
- inspect and replace spark plugs/ignition coil
- Vapor Separator Tank/fuel system
- inspect and replace thermostat
- timing belt inspection/replacement
- inspect and adjust valve clearance
- inspect and adjust throttle/shift cables/cable joint to specs
- inspect and replace propellers
- create and submit a parts pick list in YMBS
- change the oil
- inspect and replace water pumps
- conduct pressure tests
- use YDIS for basic maintenance-related tasks
- spot issues while performing regular maintenance tasks
- recommend and use the correct oil and lubricants
- properly drain and refill lower gear lubricant
- remove and reinstall lower units
- check PT&T operation
- inspect and replace anodes
- inspect and replace fuel filters and fuel pump
- conduct a compression test

Students will understand:

- the importance of service literature
- when and what to perform routine service on
- the importance of service
- the basic attributes of the propeller and what moves it
- fuel problems and resolutions

4.2L OFFSHORE Maintenance Chart

Item	Actions	Initial	Every			
		20 hrs. (3 mos)	100 hrs. (1 yr)	300 hrs. (3 yrs)	500 hrs. (5 yrs)	
Anodes (external)	Inspect/replace		✓			
Anodes (internal) 1	Inspect/replace		✓			
Anodes (internal) 2	Replacement				✓	
Battery (electrolyte level, terminal)	Inspect	✓	✓			
Battery (electrolyte level, terminal)	Fill, charging, replace		✓			
Cooling water leakage	Inspect/replace	✓	✓			
Cowling lock lever	Inspect		✓			
Engine starting condition/noise	Inspect	✓	✓			
Engine idle speed/noise	Inspect	✓	✓			
Engine Oil	Replace	✓	✓			
Engine Oil Filter (cartridge)	Replace		✓			
Fuel filter (can be disassembled)	Inspect/Replace	✓	✓			
Fuel line (high pressure)	Inspect/Replace	✓	✓			
Fuel line (low pressure)	Inspect/Replace	✓	✓			
Fuel pump	Inspect/replace			✓		
Fuel/engine oil leakage	Inspect	✓	✓			
Gear oil	Replace	✓	✓			
Greasing points	Greasing	✓	✓			
Clamp bracket bolt (through tube)	Inspect/Grease		✓			
Impeller/water pump housing	Inspect/Replace if needed		✓			
Impeller/water pump housing	Replace			✓		
Oil Control Valve (OCV)	Replace				✓	
Power Trim and Tilt	Inspect	✓	✓			
Propeller/propeller nut/cotter pin	Inspect/Replace	✓	✓			
Shift link/ shift cable	Inspect/Adjust/Replace	✓	✓			
Spark plug(s)	Inspect/Replace		✓			
Ignition coils/ignition coil leads	Inspect/Replace	✓	✓			

COURSE SYLLABUS – MCP – V-ENGINE – 4.2L OFFSHORE

Item	Actions	Initial	Every		
		20 hrs. (3 mos)	100 hrs. (1 yr)	300 hrs. (3 yrs)	500 hrs. (5 yrs)
Water from the cooling water pilot hole	Inspect	✓	✓		
Throttle link / throttle cable	Inspect/Adjust/Replace	✓	✓		
Thermostat	Inspect/Replace		✓		
Timing belt	Inspect/Replace		✓		
Valve clearance	Inspect/Adjust				✓
Cooling water inlet	Inspect	✓	✓		
Main switch/stop switch	Inspect/Replace	✓	✓		
Wire harness connections/wire coupler connections	Inspect/Replace if needed	✓	✓		
(Yamaha) meter/gauge	Inspect	✓	✓		
Exhaust guide/exhaust manifold	Inspect/replace	1000 hours			
Timing belt	Replace	1000 hours			

