

Maintenance Training Course



INLINE – F/LF150B

SYLLABUS

Yamaha
Marine University™



PROGRAM: Yamaha Marine Maintenance Certification Program
COURSE: Maintenance Training Course – INLINE – F/LF150B
PART NUMBER: LIT-150BM-NT-00 (textbook)
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Learning Goals

Students will be able to:

- use *F150 LF150 Service Manual* and related resources/tools
- use the maintenance charts in *F150 LF150 Service Manual - LIT-18616-03-35*
- inspect and replace marine batteries
- grease points / cowling and tilt operation
- inspect and replace spark plugs/spark plug wire/ignition coil
- Vapor Separator Tank/fuel system
- inspect and replace thermostat and PCV
- timing belt inspection/replacement
- inspect and adjust valve clearance
- inspect and adjust throttle/shift cables/cable joint to specs using digital caliper
- inspect and replace propellers
- create and submit a parts pick list in YMBS
- replace oil by draining and replace oil by using an extraction pump
- 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
- test fuel components on and off the engine
- remove and check fuel pump assembly
- inspect and replace timing belt

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

F/LF150B 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 (cylinder head, thermostat cover) | Inspect/replace | | ✓ | | | |
| Anodes (exhaust cover, cooling water passage cover, Rectifier Regulator cover). | 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 | | | ✓ | | |
| Power Trim and Tilt | Inspect | ✓ | ✓ | | | |
| Propeller/propeller nut/cotter pin | Inspect/Replace | ✓ | ✓ | | | |

COURSE SYLLABUS – MCP – INLINE – F/LF150B

| Item | Actions | Initial | Every | | |
|--|-----------------------------|--------------------|--------------------|---------------------|---------------------|
| | | 20 hrs. (3 mos) | 100 hrs. (1 yr) | 300 hrs. (3 yrs) | 500 hrs. (5 yrs) |
| Pressure Control Valve (PCV) | Inspect/Replace | | ✓ | | |
| Shift link/ shift cable | Inspect/Adjust/Replace | ✓ | ✓ | | |
| Spark plug(s) | Inspect/Replace | | ✓ | | |
| Spark plug caps/spark plug wires | Inspect/Replace | ✓ | ✓ | | |
| Water from the cooling water pilot hole | Inspect | ✓ | ✓ | | |
| Throttle link / throttle cable / throttle pick-up timing | Inspect/Adjust/Replace | ✓ | ✓ | | |
| Thermostat | Inspect/Replace | | ✓ | | |
| Timing belt | Inspect/Replace | | ✓ | | |
| Valve clearance | Inspect/Adjust | | | | ✓ |
| Cooling water inlet | Inspect | ✓ | ✓ | | |
| Main switch/stop switch/choke switch | Inspect/Replace | ✓ | ✓ | | |
| Wire harness connections/wire coupler connections | Inspect/Replace if needed | ✓ | ✓ | | |
| (Yamaha) meter/gauge | Inspect | ✓ | ✓ | | |
| Fuel Tank (Yamaha portable tank) | Inspect and clean as needed | | ✓ | | |
| Exhaust guide/exhaust manifold | Inspect/replace | 1000 hours | | | |
| Timing belt | Replace | 1000 hours | | | |

