



IS 7347:1974-- SPECIFICATION FOR PERFORMANCE OF SMALL SIZE SPARK IGNITION ENGINES FOR AGRICULTURAL WATER PUMPS, SPRAYERS, TILLERS, REAPERS AND OTHER SIMILAR APPLICATIONS

Scope and Consumer Requirements of IS 7347:1974

The standard, "IS 7347:1974" focuses on performance standards and testing procedures for small-size spark ignition engines, it implicitly addresses the requirements of consumers (purchasers) by setting expectations for manufacturers.

The standard uses the term **purchaser** to refer to the consumer of the engine.

Requirements

Here are some key requirements of consumers that can be inferred from the standard:

- **Clear Understanding of Engine Power Output:** Consumers need to know the **rated power** of the engine, which is the power the engine can deliver continuously under standard reference conditions. The standard mandates that manufacturers declare this rated power.
- **Verification of Power Output Claims:** Consumers should be able to verify that the engine delivers the declared rated power. The standard provides a **power correction factor** that allows for adjustments based on site conditions, enabling consumers to compare the measured power output with the declared value.
- **Fuel Efficiency Information:** Consumers require information about the engine's fuel consumption to make informed decisions. The standard requires manufacturers to declare the **specific fuel consumption** at rated output under standard reference conditions.
- **Assurance of Fuel Consumption Claims:** Consumers need assurance that the actual fuel consumption won't significantly exceed the declared value. The standard specifies that the specific fuel consumption should not exceed the declared value by more than 5% unless otherwise agreed upon between the manufacturer and the purchaser.
- **Information on Lubricating Oil Consumption:** Consumers need to know the **lubricating oil consumption** to estimate operating costs. The standard states that manufacturers should declare the maximum lubricating oil consumption, excluding oil discarded during oil changes.
- **Engine Performance Characteristics:** Consumers require detailed information about the engine's performance characteristics to assess its suitability for their needs. The standard mandates that manufacturers provide the following performance characteristics before testing:
 - Rated continuous brake output at rated speed and standard reference conditions

- Rated speed
- Declared specific fuel consumption at rated output and rated speed
- Declared lubricating oil consumption
- **Engine from Regular Production:** Consumers expect to receive an engine typical of the manufacturer's standard production. The standard requires that the engine offered for testing be from the regular production line.
- **Agreement on Performance After Endurance Test:** Consumers need to know how the engine's performance might degrade after prolonged use. The standard suggests an agreement between the manufacturer and the purchaser regarding acceptable limits for the increase in specific fuel consumption and decrease in power after the endurance test.

How the Standard Satisfies Requirements

The standard, "IS 7347:1974", primarily focuses on establishing standardized testing procedures to evaluate the performance of small-size spark ignition engines. By defining these procedures and setting performance benchmarks, the standard indirectly addresses consumer requirements.

The standardized testing ensures that:

- Consumers receive reliable information about the engine's power output, fuel consumption, and lubricating oil consumption, allowing for informed purchase decisions.
- Manufacturers are held accountable for the performance claims they make.
- There is a level playing field for comparing engines from different manufacturers.

The standard does not explicitly outline consumer rights or avenues for recourse in case of discrepancies. This aspect might need to be addressed through separate consumer protection regulations or contractual agreements.