

## Single cylinder carburetted SI engine with Optical Access

Specifications of the engine setup are as follows:

- 4-stroke, single cylinder carburetted SI engine
- L-type Head
- 3 HP power
- 146 cc capacity and 7.4 compression ratio
- Used for agricultural purposes like lawn mover.
- Rope brake dynamometer arrangement for load application.
- Used with both optical and thermal head.

Study done with optical access on this setup- Analysis of Combustion Visualization of Gasoline fuelled and M50 fuelled Engine using Spark plug of different voltages.

- Tests were taken in optical head engine configuration running at idling condition.
- Three sparks plugs having varying gap between the electrodes were used for comparative study.
- High speed CCD camera (Photron) was used to take videos of flame propagation at 4000 frames per second.



