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**Product Name :**

Engine, Diesel, 4 Stroke

**Product Code :**

SLE/PHY/170



Science Lab
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# Description :

**Engine, Diesel, 4 Stroke** (Product Code: SLE/PHY/170) is a hand-cranked working model used to demonstrate how a four-stroke diesel engine operates in physics and automotive training classrooms. Turning the main shaft by hand drives the crankshaft, cam, valves, piston and fuel pump through every stage of diesel firing, and a 6 V supply lights the ignition light and glow plug. It is made by **Jain Scientific Equipments Pvt Ltd (ScienceLab)**, an OEM manufacturer of school physics lab equipment in India, at its own factory in Ambala.

## Specifications

| Parameter | Detail |
|---|---|
| Model type | 4-stroke diesel hand-crank model with actuating movable parts |
| Materials | Cast alloys and ABS plastic |
| Operation | Cranking the main shaft by hand actuates all parts to show the stages of a 4-stroke diesel motor firing |
| Functioning parts | Crankshaft, cam, cam gear, connecting rods, piston, intake/exhaust valves, rocker arms, push rods, fuel pump |
| Identifiableparts | Crank case, crank shaft, connecting rod, cylinder, piston, intake valve, exhaust valve, pestle shaft, glow candle (glow plug), swing lever, exhaust manifold/pipe, cam shaft gear, injection pump, governor spindle, supply line, cylinder pump, piston pump, pressure valve, delivery pipe, suction sub, air filter, injection nozzle, nozzle body, nozzle needle, pressure bolt, pressure socket, oil return |
| Electrical | Ignition light and glow plug can be activated using a 6 V power supply |
| Product code | SLE/PHY/170 |
| Manufacturer | Jain Scientific Equipments Pvt Ltd (ScienceLab) — OEM |
| Country of origin | India (made in Ambala, Haryana) |

## What Is the 4 Stroke Diesel Engine Model Used For?

Teachers crank the model slowly to walk students through intake, compression, power and exhaust, pointing out how the cam, push rods and rocker arms open each valve at the right moment and how the injection pump and nozzle deliver fuel. Because a diesel engine ignites fuel by the heat of compression rather than a spark, the model is also a good way to explain why a glow plug helps with cold starts.

Its long list of identifiable parts makes it a ready labelling exercise for mechanics lab equipment in India used in physics, ITI and automotive courses. Crank gently without forcing the mechanism, keep moving parts free of dust, and switch off the 6 V supply after the lesson.

## What to Specify When Ordering

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