

FIELD CASE STUDY · CONSTRUCTION EQUIPMENT · INDIA · 2026

A 21-tonne excavator on a Greentech D51: 4.0% less diesel for every engine hour

Ramalingam Construction Company (RCCL) fitted a Greentech D51 to its Tata Hitachi ZAXIS 220LC excavator on 7 August 2026. The result comes straight from the company's own hour-meter and fuel-filling records — seven months and 1,859 engine hours before fitting, compared with the first 208.8 hours after.

13.13 → 12.60

Litres of diesel per engine hour — seven-month average before, first 208.8 hours after

-4.0%

Diesel used per engine hour

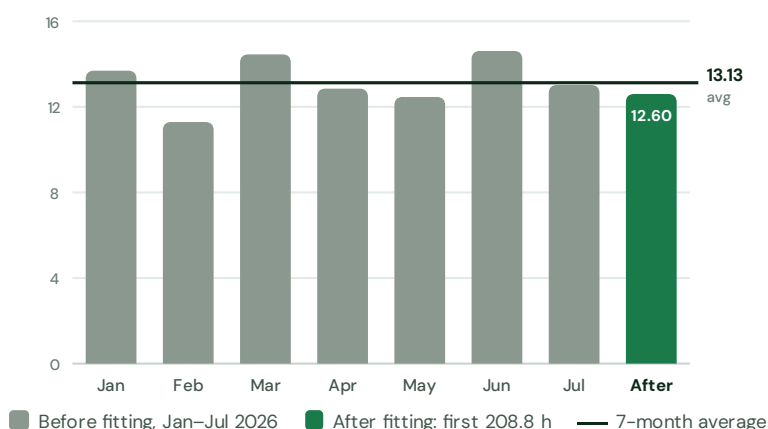
111L

Diesel saved in the first 208.8 hours

₹11,100

At ₹100 a litre — the operator's own valuation

Diesel per engine hour, month by month · litres per hour, lower is better



The operator's record

Period	Engine hours	Diesel filled (L)	L / hour
Jan 2026	238	3,259.3	13.69
Feb 2026	291	3,284.9	11.29
Mar 2026	313	4,524.4	14.45
Apr 2026	306	3,931.5	12.85
May 2026	261	3,253.2	12.46
Jun 2026	182	2,659.8	14.61
Jul 2026	268	3,488.7	13.02
Jan–Jul 2026	1,859	24,401.8	13.13
After fitting	208.8	2,630	12.60

At the seven-month rate of 13.126 L/h, 208.8 hours would have taken **2,741 L**. The machine used **2,630 L** — **111 litres less**.



Ramalingam Construction's Tata Hitachi ZAXIS 220LC during fitting, on the machine's own working ground.



The D51 enhancer goes into the fuel tank and stays there; the Air Refiner sits at the air intake.

Why litres per hour

An excavator earns its money in one place, so kilometres per litre tells you nothing. The industry measure is diesel per engine hour: litres filled, divided by hours on the hour meter. This machine burns about 3,500 litres a month.

Measured against its own history

The baseline is the full January–July average, not one good or bad month. Month to month this machine ran between 11.3 and 14.6 L/h as the work changed, so the result is set against all seven months together. Later months will be added as they close.

What was fitted

One Greentech D51: one Fuel Enhancer and one Air Refiner, rated for tanks up to 500 litres — the ZAXIS 220LC carries 400 L. No engine modification, no maintenance, nothing to refill.

