

Carbon Reduction Initiative

Hybrid Excavator Tried for Site Establishment

A 20T Hybrid Excavator was hired to establish a new site office and lay down area. It was used for topsoil stripping, stockpiling, installation of sediment controls and drainage.

The team wanted to trial the machine on site as this could benefit the project through:

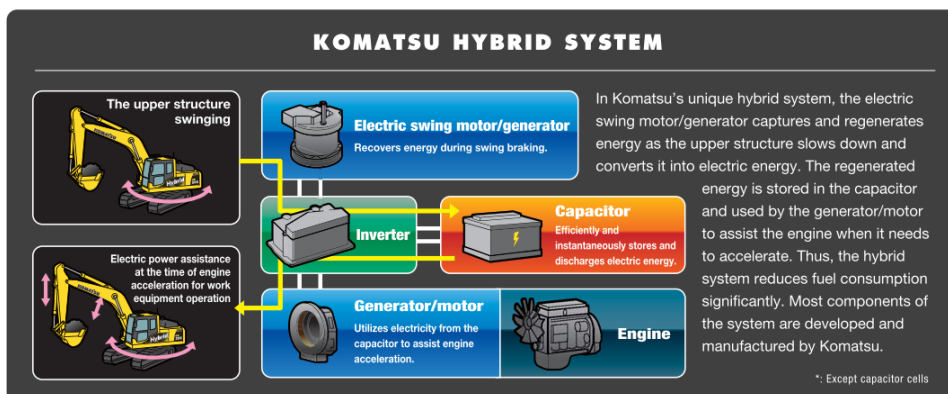
- ▶ Reduced fuel costs
- ▶ Lower carbon emissions
- ▶ Less noise

The machine was a 215LC Komatsu hired from Hirepool. It uses electricity whenever possible, switching to the diesel engine when more power is required for excavating through harder material.

It claims to reduce fuel consumption by up to 22%.



The hybrid on site



From the Komatsu brochure

Benefits found during the trial

- ▶ Savings in cost and carbon emissions. The team refueled less often than they would expect to with a regular machine, saving about \$200 a day in fuel when it was working at full capacity.
- ▶ Noticeable noise reduction would make this machine useful for night works or near sensitive stakeholders.
- ▶ Reduced noise exposure for the operator and team working around it.
- ▶ The hire rate for the machine is the same as for the standard excavator.

Potential issues

The excavator arm must be fully extended to allow the bucket to be changed. This could be an issue on a constrained site.

Overall, the team is keen to use this machine again in future.