

CO₂e reduction with PANOLIN GREENMACHINE

Company:

M.M.T Macchine Movimento Terra Srl

Registration date: 01.02.2023

Alteration date: 01.02.2023

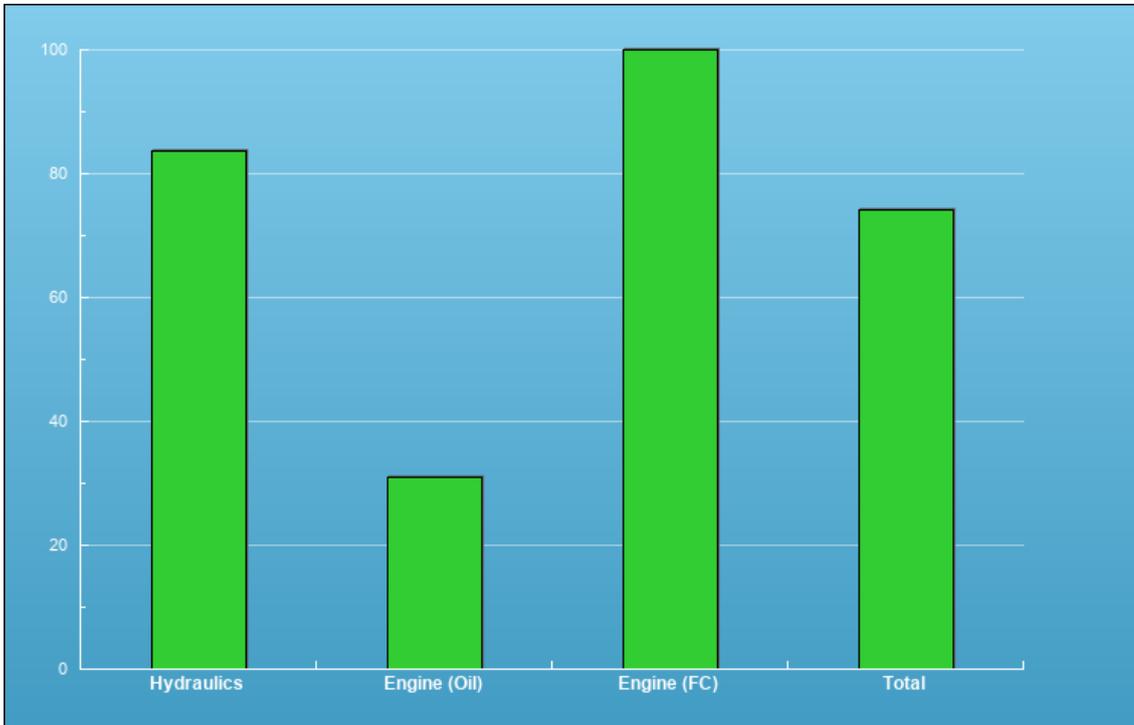
Machine / lubrication point	CO ₂ e (in kg/*)		CO ₂ e saving		Costs (in EUR/*)		Cost saving	
	Mineral oil	ECL	in kg/*	in %	Mineral oil	ECL	in EUR/*	in %
BOBCAT E60	0.34	0.08	0.25	75.1	1.13	0.40	0.73	64.7
Hydraulics	0.26	0.03	0.23	89.1	0.82	0.17	0.66	79.8
Engine (Oil)	0.08	0.06	0.03	31.0	0.31	0.23	0.07	24.0
Engine (FC)	0.00	0.00	0.00	100.0	0.00	0.00	0.00	100.0
LIEBHERR PR726 05	0.09	0.03	0.07	71.7	0.28	0.15	0.13	46.5
XL CAT027270								
Hydraulics	0.09	0.03	0.07	71.7	0.28	0.15	0.13	46.5
Total for all machines	0.43	0.11	0.32	74.2	1.41	0.55	0.86	60.4

* /h, /km, /Mile

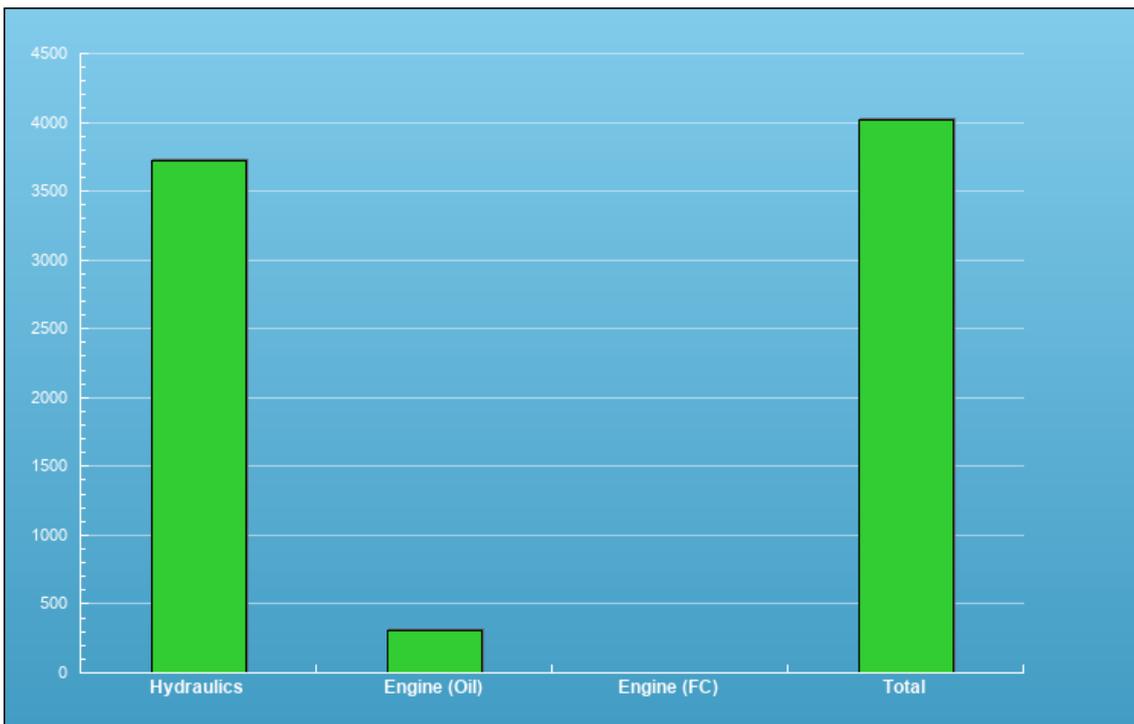
Machine / lubrication point	CO2e (in kg)		CO2e saving		Costs (in EUR)		Cost saving	
	Mineral oil	ECL	in kg	in %	Mineral oil	ECL	in EUR	in %
BOBCAT E60	4'049	1'010	3'039	75.1	13'523	4'775	8'748	64.7
Hydraulics	3'072	335	2'736	89.1	9'862	1'992	7'869	79.8
Engine (Oil)	978	675	303	31.0	3'662	2'783	879	24.0
Engine (FC)	0	0	0	100.0	0	0	0	100.0
LIEBHERR PR726 05	1'372	389	983	71.7	4'215	2'257	1'958	46.5
XL CAT027270								
Hydraulics	1'372	389	983	71.7	4'215	2'257	1'958	46.5
Total for all machines	5'421	1'399	4'022	74.2	17'738	7'032	10'706	60.4

CO₂e savings potential for all machines

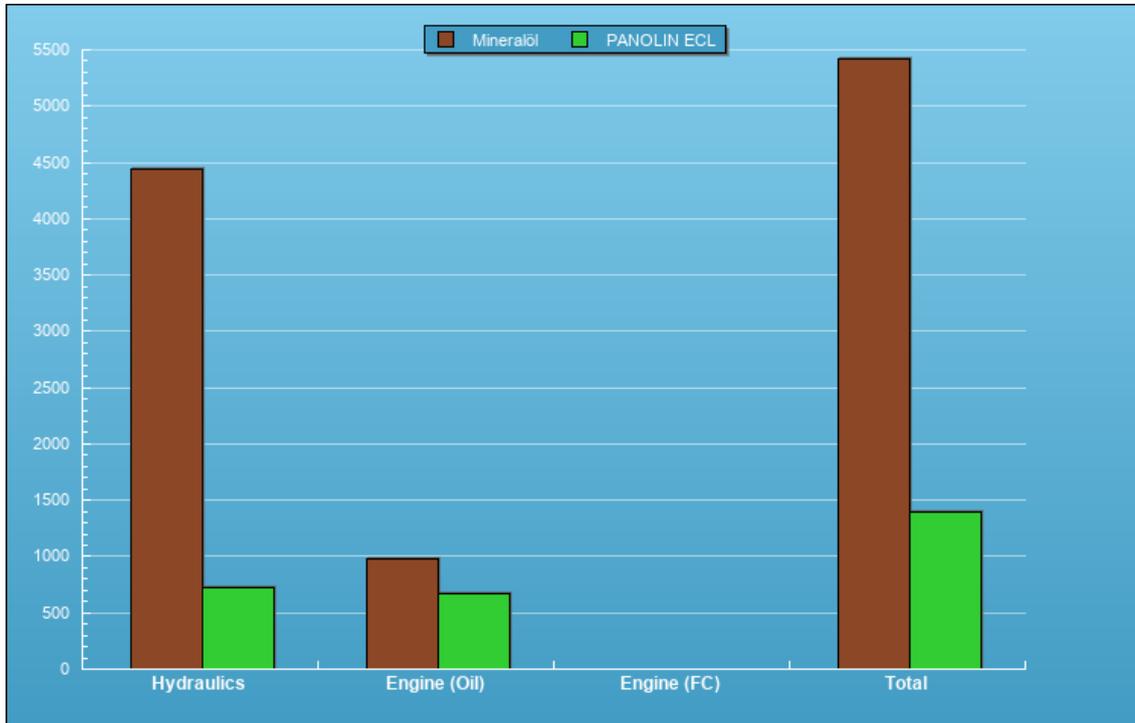
CO₂e savings potential in percent



CO₂e savings potential in kg

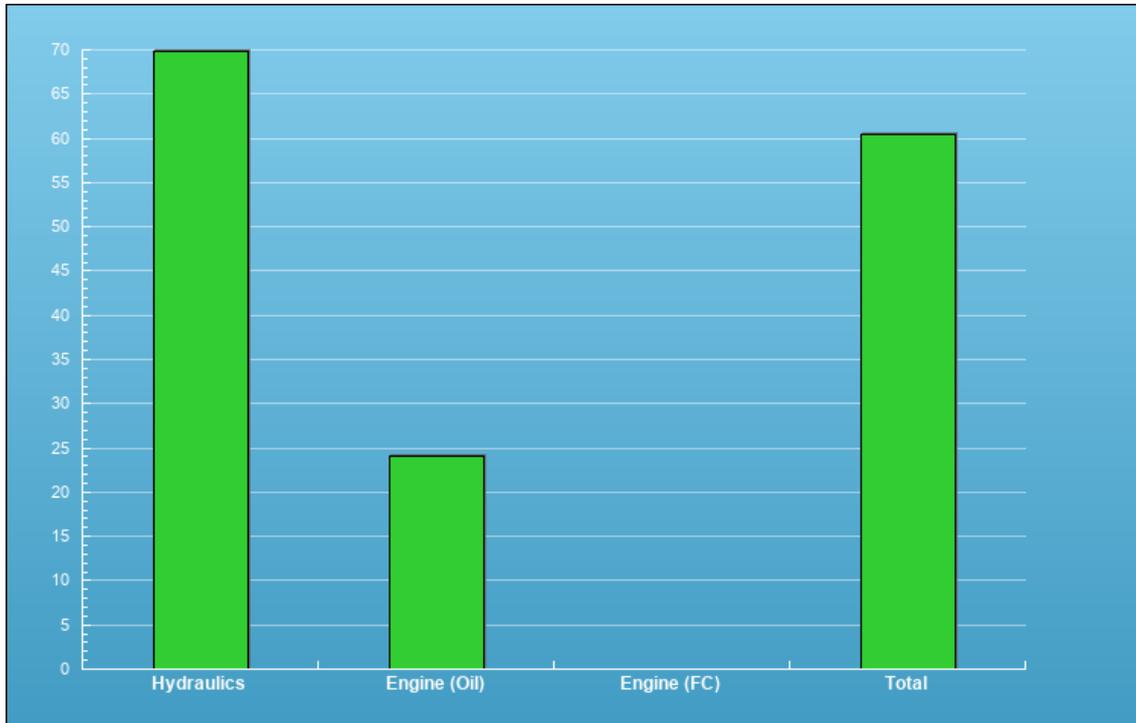


CO₂

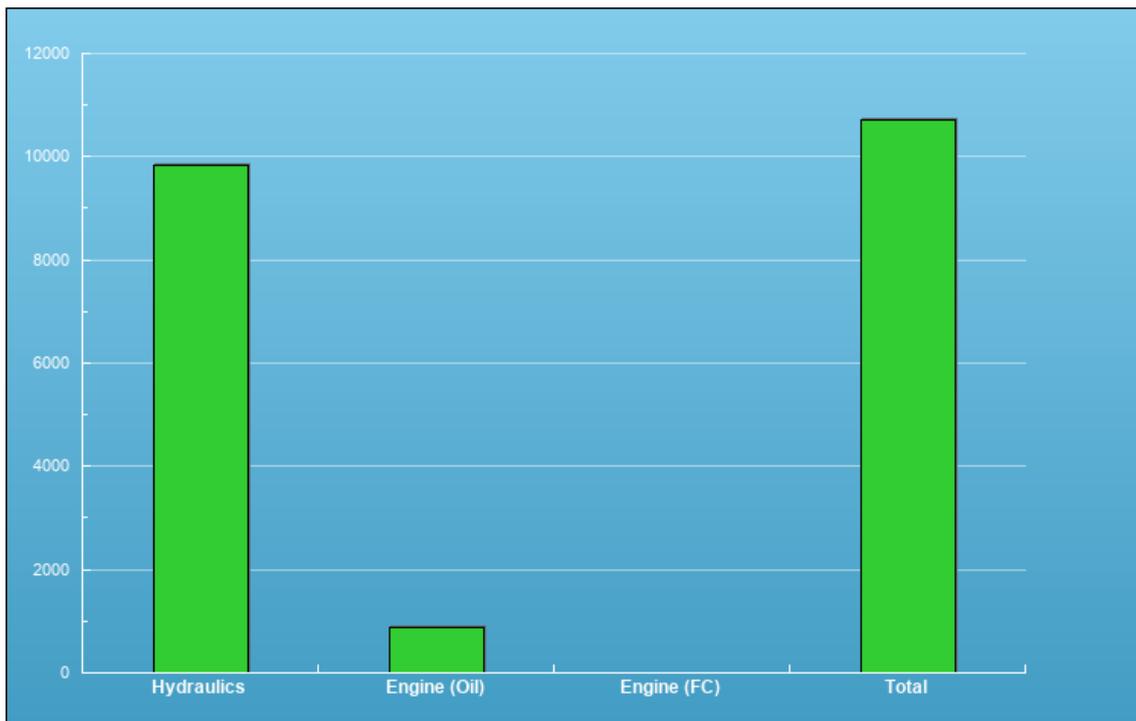


Cost savings potential for all machines

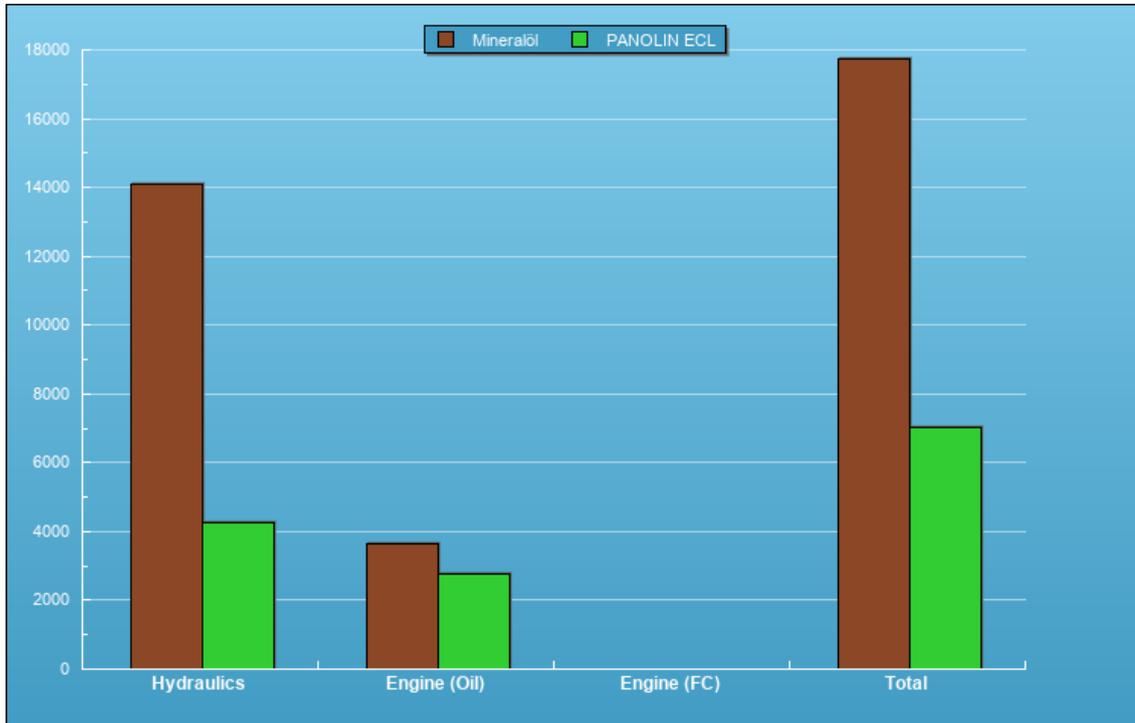
Cost savings potential in percent



Cost savings potential in EUR



Total costs for all machines in EUR



Panolin International Inc.
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8322 Madetswil

Zürich, 2017-08-04

Assessment Panolin CO2-Calculator

- 1) inspire AG is an independent, non-profit research organisation in the field of production technology and a strategic partner of ETH Zürich. Scientific work at inspire is under continuous supervision of a full professor at ETH Zürich, in this case the chair of the "Institute of Machine Tools and Manufacturing" (www.iwf.mavt.ethz.ch), Prof. Konrad Wegener.
- 2) Panolin has mandated inspire to assess their CO2-calculator. For this purpose, Panolin supplied all necessary information, gave access to the calculation scheme and to people working with the tool.
- 3) inspire has analysed the CO2-calculator according to the standard ISO/TS 14067:2013 (Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification and communication). It resulted in December 2016 in two recommendations in order to achieve full compliance with the above standard. Based on these findings, PANOLIN improved the CO2-calculator accordingly and has presented a comprehensive disclosure report according to ISO/TS 14067:2013. This report was reviewed by inspire in July 2017.
- 4) The review of the calculator and of the disclosure report (Version 26.4.2017) has left no doubt that it is fully compliant with ISO/TS 14067:2013. It shall be considered as a self-declared environmental claim in the sense of ISO 14021 (Environmental labels and declarations – Self-declared environmental claims).



inspire AG
Lukas Weiss
Group Leader Machine Tools



Institute of Machine Tools
and Manufacturing ETH Zürich
Prof. Dr. Konrad Wegener

Filling data

BOBCAT E60 Operating time: 12000 h

Number: 1

Hydraulics: 100l, MIN ISO 46 / PANOLIN HLP SYNTH 46

Engine: 12l, MIN SAE 15W/40 / PANOLIN BIOMOT LD 10W/40, Fuel savings: 1%

LIEBHERR PR726 05 XL CAT027270 Operating time: 15000 h

Number: 1

Hydraulics: 116l, ISO VG 46 / PANOLIN HLP SYNTH 46