



Low-level order picking trucks

This type II declaration is divided into three major segments.

Manufacturing — Usage — Scrapping

Manufacturing

All data is collected from BT's plant in Mjölby, Sweden and is calculated for the BT Optio L-series OSE250.

Our manufacturing of trucks includes several processes. For example, metal sheets are cut and bended to the right proportion. These sheets are later welded together using the latest available welding technology.

After parts have been welded and grinded they will receive a protective layer of paint. BT uses a powder paint shop facility where emission has been reduced through advanced technology. Waste water from the washing system is treated and reused which results in zero generation of sewage.

Finally, all different parts should be assembled and this is performed in a clean workshop environment. Our production is done according to the world class Toyota Production System. In the table below we declare emissions and waste during our manufacturing processes.

Emission to air

Substance	kg/truck
Carbon dioxide, CO ₂	79,00
Nitrogen oxides, NO _x	0,09
Volatile organic compound, VOC	0,02
Sulphur oxides, SO _x	0,01
Carbon oxide, CO	< 0,01

Discharge to water

Substance	kg/truck
Unpolar alifat.hydrocarbons	0,000004
Unpolar aromatic hydrocarbons	0,000004
Phosphorus	< 0,00000008

Waste recycled

Substance	kg/truck
Metal scrap (13 fractions)	68,77
Wood	3,85
Combustible waste, energy recovered	3,79
Cardboard, corrugated	1,88
Paper	0,25
Plastic	0,03

Hazardous waste

Substance	kg/truck
Sludge from water treatment	1,87
Electronics scrap	0,30
Batteries	0,30
Waste oil/absorbents	0,11
Washing liquid	0,10
Waste water (cooling)	0,07
Paint waste	0,03
Chemical residue & others	0,01
Fluorescent tubes	0,01

Usage

Here we review the truck's consumption of energy, oil and other consumables during its usage.

Battery charging and consumption:

	Lead/acid	Lithium ion
Life of truck, hours	6000	6000
Battery size (average)	450 Ah	200 Ah
Operating hours/charge	4 h *	2 h *
Mains power in kWh / charge	14,7 kWh **	4,7 kWh
Mains elec. in kWh / life of truck	22050 kWh **	14250 kWh

* Depending on load weight and application

** WA-charger without acid circulation

Oil change and other lubrication:

Gear box oil / life of truck	7,0 l
Hydraulic oil / life of truck	4,8 l
Grease and lubrication / life of truck	0,3 kg

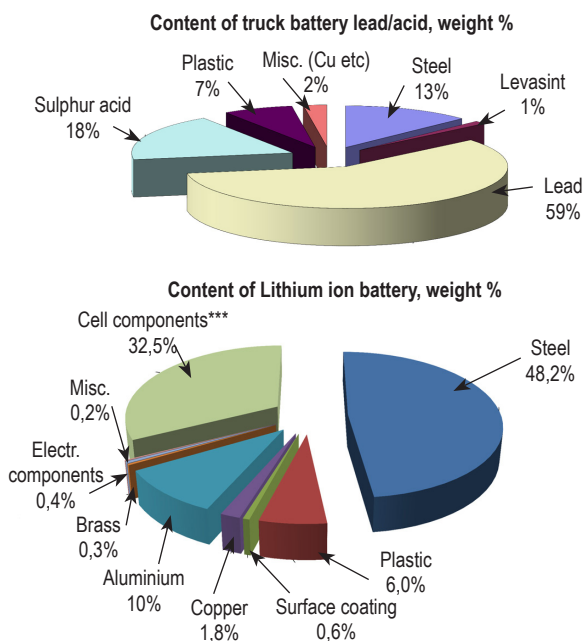
Consumables:

Drive wheels / life of truck	2 pcs
Support arm wheels / life of truck	4 pcs

All above are depending on application

Scrapping

The major content in the BT Optio L-series is steel which is fully recyclable. In fact, over 99 % of the truck's weight is recoverable. The batteries of the truck are taken care of by approved waste management firms. The lead is melted down and reused, the acid is neutralized and the energy in the plastic is used for heating. The content of the different type of batteries can be seen from the pie charts below.



*** Content of cell components; LiMnNiCoO₂, carbon, PVDF, Al foil, Cu foil, electrolyte, laminated Al foil

Substances of concern in BT Optio L-series ****

Substance	g/truck
TBBA ²⁾	5,20
Nickel ²⁾	3,90
Lead ²⁾	0,30
Thiram (TMTD) ²⁾	0,01
TOTAL	9,41

The amount of substances of concern (SOC) included in the BT Optio L-series has been mapped out. The BT Optio OSE250 contains less than 10 g of substances of concern according to the specification above.

1) BT's "black list" — lists chemical substances which must not be used in BT's production processes or in BT's products.

2) BT's "grey list" — lists chemical substances which use should be restricted in BT's production processes as well as in BT's products.

**** Based on declarations from suppliers.

For information concerning substances of very high concern on the Candidate list, please see www.toyota-forklifts.eu/en/company/sustainability.

