Environmental declaration BT Optio H-series



High-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 H-series OME100H.

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 "state of the art" powder paint shop facility where carbon emission has been reduced dramatically 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.

Discharge to water

Substance	kg/truck
COD	0,002
BOD	0,001
TOC	0,001

Emission to air

Substance	kg/truck
Carbon dioxide, CO ₂	281,00
Nitrogen oxides, NO _x	0,44
Sulphur dioxide, SO ₂	0,09
Volatile organic compound, VOC *	0,09
Carbon oxide, CO	0,02

Waste recycled

Fractions	kg/truck
Metal scrap, (12 fractions)	227,71
Combustible mtrl, (energy recovery)	14,25
Wood	10,53
Cardboard, corrugated	8,85
Paper	1,65
Plastic	0,11

Hazardous waste

Fractions	kg/truck
Residue from purification plant	6,33
Discard manufacturing equipment	1,40
Electronics scrap	1,00
Batteries	0,86
Waste water (cooling, other)	0,48
Waste oil/absorbents	0,32
Alkaline cleaning bath	0,38
Paint waste	0,11
Flourescent tubes	0,03

* From other processes than powder painting



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Usage

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

Battery charging and consumption:

Life of truck	10 000 hours
Battery size (average)	620 Ah
Operating hours/charge	7,7 h ¹⁾
Mains power in kWh/charge	36,7 kWh
Mains elec. In kWh/ life of truck	47715 kWh
Mains power in kWh/charge Mains elec. In kWh/ life of truck	36,7 kWh 47715 kWh

¹⁾ Depending on load weight and application

Oil change and other lubrication:

Gear box oil / life of truck	3,3 I
Hydraulic oil / life of truck	Zero I ²⁾
Grease and lubrication / life of truck	5 kg

²⁾ No need for change

Consumables:

Drive wheels / life of truck	4 units
Support arm wheels / life of truck	4 units
Air/ oil filter/ life of truck	1 units
Main lift chain / life of truck	1 units

All above are depending on application

Scrapping

The major content in the BT Optio H-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 and are recycled. The lead is melted down and reused, the acid is neutralized and the energy in the plastic is used for heating.

Content of truck battery, weight %



Substances of concern in BT Optio H-series

Substance	g/truck
Brominated flame retardents ²⁾ (not PPB+PBDE)	48,15
Lead alloys ²⁾	5,23
Thiram ²⁾ (TMTD)	0,64
TOTAL	54,02

The amount of substances of concern (SOC) included in the BT Optio H-series has been mapped out. The BT Optio OME100H contains less than 55 g SOC substances according to the specifications above *.

2) "Grey listed" substances

BT's "black list" — lists chemical substances which must not to be used in BT's production processes or occur in unchanged form in BT's products.

BT's "grey list" — lists chemical substances which use should be restricted in BT's production processes as well as their occurrence in unchanged form in BT's products.

* Based on declarations from suppliers.







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