Environmental declaration BT Reflex

Reach 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 Reflex RRE160.

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 recieve a protective layer of paint. BT make use of the powder painting technology which is the best available technology today with respect to the environment.

Finally, all different parts should be assembled and this is performed in a clean workshop environment. In the tables we declare emissions and waste during our manufacturing processes.

Emission to air

Substance	kg/truck
Carbon dioxide, CO_2	217,00
Nitrogen oxides, NO_X	0,36
Volatile organic compound, VOC	0,07
Sulphur dioxide, SO_2	0,044
Carbon oxide, CO	0,016

Discharge to water

Substance	kg/truck
COD	0,043
BOD	0,013
Unpolar alifat.hydrocarbons	Very small concentrations
Unpolar aromatic hydrocarbons	
Phosphorous, P	
Zinc, Zn	
Nickel, Ni	
Copper, Cu	
Chromium, Cr	

Waste recycled

Substance	kg/truck
Metal scrap	197,91
Other combustible mtrl	15,67
Wood	14,52
Cardboard, corrugated	10,38
Paper	1,52
Plastic	0,12

Hazardous waste

Substance	kg/truck
Residue from purification plant	2,78
Batteries	1,07
Electronics scrap	0,92
Waste oil / absorbents	0,89
Alkaline cleaning bath	0,55
Waste from waste water treatment	0,22
Paint waste	0,07
Flourescent tubes	0,04

Usage

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

Battery charging and consumption:

Life of truck	15000 hours
Battery size (average)	600 Ah
Operating hours/charge	5,5 h [1]
Mains power in kWh/charge	36,4 kWh
Mains elec. in kWh/ life of truck	99195 kWh

[1] Depending on load weight and application

Oil change and other lubrication:

Gear box oil / life of truck	0 l [2]
Hydraulic oil / life of truck	0 l [2]
Grease and lubrication/ life of truck	7 kg

[2] No need for change

Consumables:

Drive wheels / life of truck	9
Support arm wheels / life of truck	6
Air/ oil filter/ life of truck	2
Free lift chain / life of truck	3
Main lift chain / life of truck	6

All above are depending on application

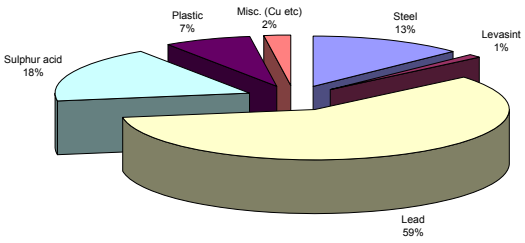
Scrapping

The major content in the BT Reflex range is steel which is fully recyclable. In fact the recycling rate [3] of the BT Reflex range is close to 99% of the truck's weight.

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.

[3] Rate measured as recoverability rate according to ISO 22628

Content of truck battery, weight %



Substances of concern in BT Reflex

Substance	kg/truck
Brominated flame retardents [2]	0,06
Lead, Pb [2]	0,01
Chromium (6+) compound [2]	Very small concentrations
Thiram [2]	
TOTAL	**0,07**

The amount of substances of concern (SOC) included in the BT Reflex has been mapped out. The BT Reflex RRE160 contains less than 70 g substances of concern according to the specification above.

1) "Black listed" substances

2) "Grey listed" substances

[1] 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.

[2] 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.

The "black & grey" list was first defined by Volvo and BT has adopted this definition with the approval of Volvo.

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