

The Strepv Thieu Boat Lifts

A short presentation
by

Michael S. Bottomley
Chairman
CIBSE Lifts Group



For about the next hour or until
a successor has been
elected!!

□ The Bottomley Visit of 2011

- *Question*
- What sort of man would drag his wife :-
- Half way across Europe
- On the back of a motor bike
- In the rain
- To see a couple of lifts?
- *Answer*
- A man who has probably been the Chairman of the CIBSE lifts group for too long!



But who wouldn't want to see two of the largest lifts in the world!



Rated Load: 9350 Tonnes
Travel: 73.15 m
Rated Speed: 0.2m/sec
Carrier width 12m
Carrier length 112m
Carrier depth 3.35- 4.15m
Travel time 7 minutes
This will be the largest boat lift in the world until 2015
Oh and they cost £138,000,000

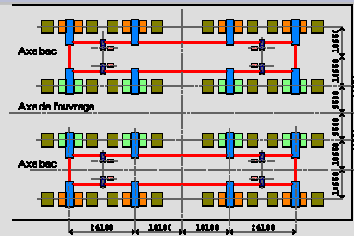
□ Location

The lifts provide a strategic link between 2 canal systems separated by almost 240 feet of altitude

The Euro standard 1350 tonne capacity barges ship freight in a competitive 21st century market. The site is about 4 hours ride from Calais on a BMW K1200LT!

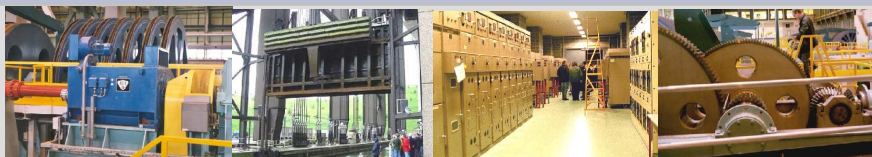


The Drive



Each lift is driven by means of 8 winches.
Each of these has a "low speed" (LS) reduction gear, driving 2 4.8m drums onto which the control cables are wound.
A synchronisation loop connects the LS reduction gears to 4 high speed (HS) reduction gears driven by 4 electric motors.
Each motor is powered by a variable pulse width frequency convertor.
The overall reduction ratio of the gearing is 1248:1.

Other features



The carriers are only guided over the first and last quarter of travel. *Its what the web site says!*
The gates were designed to withhold impact by a 2000tonne vessel at 5 km/h. *"Lock faults" here could be fatal!!*
The load ropes are fixed to hydraulic jacks which equalise rope tension. *If it ever starts to tip its all over!!!*
Ropes 85 mm nominal diameter, 18 X 26 Lang's lay extruded zinc-plated steel wires 34kg/m. 36.7 km of cables over 2 lifts.
Designed for 20 years operational life.
Book the year off in 2022 if you work for Re-ropes in Belgium!!!!

□ Is it just me or?

- Is the separation of load control and suspension risky?
- If the lifts are not fully guided they cannot have safety gears or can they?
- They don't seem to comply with MD.
- Drum drives will move the carriers laterally in travel by about 450mm and the gates must always seal.

A brief overview



□ Any questions?

- If you visit I hope the weather is kinder for you

