# Rising to the

**This year's entries for the *IC* Top Lift 2014 competition is a selection of impressive lifts completed in the last 12 months. Readers are asked to pick their favourite from our selection of 10 outstanding lifting projects.**

## ENTRY 1

### Bridge build

**EQUIPMENT USER:** Steil Kranarbeiten
**LIFTING EQUIPMENT USED:** Crawler crane
**LOCATION:** Germany

Steil Kranarbeiten, based in Trier, Germany, used a Terex Superlift 3800 lattice boom crawler crane to help build a 440 metre long bridge in Luxembourg. Fourteen steel girders measuring 96 metres long, 7 m high and weighing 295 tonnes were installed. The 650 tonne capacity crane was set up in a SSL1 configuration with a 72 m main boom and 250 tonnes of counterweight on the superstructure. The girders were lifted to a height of 22 m and was crawled 50 m forward. The lifts were made at a working radius of 23.5 m.

## ENTRY 2

### Landslide rescue

**EQUIPMENT USER:** Vernazza Autogrù
**LIFTING EQUIPMENT USED:** All terrain crane
**LOCATION:** Italy

Italian lifting company Vernazza Autogrù helped recover an Intercity 660 train following a landslide near the cliffs of Capo Mimosa, Italy. The train derailed on tracks between a vertical rock face and the sea. To recover the train, a Terex AC 700 was secured onto a floating dock, along with an AC 100/4 L and an AC 140. To safely carry out the challenging lift, the AC 100/4 L was lifted from the barge onto the rail tracks, where it was able to lift the train back onto the tracks.

## ENTRY 3

### Space constraints

**EQUIPMENT USER:** Chunjo Construction
**LIFTING EQUIPMENT USED:** Crawler crane
**LOCATION:** South Korea

Chunjo Construction used a Manitowoc 31000 to lift a 670 tonne wash tower at the Korea Petrochemical LTD plant in Ulsan, South Korea. The crawler was positioned between refinery equipment and a river, leaving 15 m for the counterweight. The 31000's variable position counterweight made the lift possible.

## ENTRY 4

### Record project

**EQUIPMENT USER:** ALE
**LIFTING EQUIPMENT USED:** strand jacks, high capacity modular ballast system
**LOCATION:** Russia

International heavy lift and transport specialist ALE completed a load-out of the 47,830 tonne Arkutun Dagi topside. ALE's work included the pulling operation using strand jacks, a high capacity modular ballast system and precision 3D barge monitoring. The weight of the load meant that the working tolerances of the barge were much smaller than during a conventional load out. The Arkutun Dagi field is off the coast of Russia.

## ENTRY 5

### Refinery project

**EQUIPMENT USER:** Felbermayr
**LIFTING EQUIPMENT USED:** Crawler crane
**LOCATION:** Romania

Crane service provider, Felbermayr, headquartered in Austria, used a 1,000 tonne capacity Liebherr LR 11000 crawler crane to lift steel cylinders at the Petrom refinery in Plojesti, near the Romanian capital Bucharest. The largest cylinder was 58 metres long with a 4 m diameter and weighed 335 tonnes. The lift had to be carried out in a constricted area while the plant was running. The largest column was lifted at a radius of 27.5 m.

# challenge

**To register your vote, please complete and return the form over the page. Alternatively, an entry form is available online in the cranes and transport section of the *IC* website: www.khl.com**

## ENTRY 6

### Refined lift

**EQUIPMENT USER:** Guay Crane
**LIFTING EQUIPMENT USED:** Crawler crane, all terrain crane
**LOCATION:** Canada

Crane service provider Guay Crane lifts a 97 tonne column at Valero's refinery in Levis, Quebec, Canada. The column was lifted at a radius of 41.7 metres using a 600 tonne capacity Terex CC 2800, configured with 35.9 m of main boom, 41.7 m of luffing jib and 250 tonnes of superlift counterweight. The tailing crane was a Grove GMK6300L with full counterweight.

## ENTRY 7

### Vessel installation

**EQUIPMENT USER:** Mammoet
**LIFTING EQUIPMENT USED:** Crawler crane
**LOCATION:** Netherlands

International heavy lift and transport provider Mammoet used its 3,000 tonne capacity Liebherr LR 13000 to help install four platform legs on Van Oord's new wind turbine installation vessel, the *Aeolus*. The platform legs were 87 metres long and weighed 920 tonnes each. Mammoet used specially designed top lifting tools and a tailing frame. Mammoet will also be involved in installing four spud cans, a company spokesperson said.

## ENTRY 8

### Stinger sections

**EQUIPMENT USER:** Aertssen Kranen
**LIFTING EQUIPMENT USED:** All terrain crane
**LOCATION:** Netherlands

Aertssen Kranen helps construct a stinger for construction vessel *Pieter Schelte*. The parts weighed up to 500 tonnes, and measured 48 metres long, 18 m wide and 24 m high. The parts were lifted using a Terex AC 700, two AC 500s and a 300 tonne Grove GMK6300L. Scheuerle SPMT was used to transport the sections.

## ENTRY 9

### Coastal conditions

**EQUIPMENT USER:** Sarens
**LIFTING EQUIPMENT USED:** Super heavy lift ring crane
**LOCATION:** France

International lifting and transport specialist Sarens from Belgium used its 3,200 tonne capacity SGC-120 super heavy lift crane to install a reactor head at a nuclear power site in Flamanville, France. The head weighed 350 tonnes and was lifted at a radius of 140 metres. The SGC-120 was assembled with a heavy duty jib designed to lift up to 1,500 tonnes at 40 m radius. The coastal location of Flamanville made wind speed a primary concern.

## ENTRY 10

### Parbuckling operation

**EQUIPMENT USER:** Fagioli
**LIFTING EQUIPMENT USED:** Tower lifts, strand jacks, SPMT
**LOCATION:** Italy

Fagioli, from Italy, used 12 tower lifts, 168 strand jacks and 48 lines of SPMT to remove the wreck of the *Costa Concordia* cruise ship. Work included detaching the wreck from the rocks, using strand jacks to rotate the vessel 25 degrees and rotating to a final total of 64 degrees by means of jacks and ballasting of sponsons. Stabilisation was carried out by securing four anchor blocks to the sea bed by 300 and 450 tonne strand jacks. Anchor blocks and towers were used to secure the wreck's keel during rotation.