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NEWS
DUCTILE IRON PIPE SYSTEM

Information from the European Association for Ductile Iron Pipe Systems · EADIPS®

Editorial

Dear readers,

In this June 2011 issue of the Newsletter you can read my reports on the replacement of a combined sewer, the re-equipment of a road tunnel with a pipeline for fire-extinguishing water and the refurbishment of a penstock pipeline as a result of renovation work.

In a final article I tell you about a technique for ductile iron pipe systems which is new to trenchless laying procedures – it is also new to the world! Have an enjoyable and stimulating read,

Sincerely yours,

Ihr Raimund Moisa

Replacement of a combined sewer

A street called the Neuendorfer Straße needed to be renovated near the river Havel in the German federal state of Brandenburg. This was a complex construction operation in which the existing supply and disposal pipelines had to be allowed for, and the requisite road-building work and tram-track laying co-ordinated.

◆ What was involved here was replacing a combined sewer in need of renovation with DN 600 nominal size ductile iron sewer pipes with TYTON® push-in joints. The easy assembling of the ductile iron pipes and the safe and quick fitting of the saddles meant that swift progress could be made with the installation work. There was no risk to the ductile iron pipes from the road and tram traffic which would later be travelling along the route of the pipes either as result of the traffic loads and vibration caused by it or as a result of any stray currents. The ductile iron pipes, which have a zinc coating and an epoxy finishing layer, are electrically isolated every 6 m. An area containing intersections was re-installed with DN 300 ductile iron drinking water pipes. The easily assembled BLS® push-in joint was used in sections run in casing pipes. Ductile iron pipe systems stand for long life!

Re-equipment in the Lämmerbuckel Tunnel

◆ In Germany's longest serving autobahn tunnel, on the part of the A 8 autobahn which climbs to the Swabian Alps near Hohenstadt, extensive renovation work began in March 2011. 300 m of ductile iron pipes with the BLS®/VRS®-T push-in joint were installed. Via the eastern portal of the Lämmerbuckel Tunnel, from the connecting manhole belonging to the local supply company, Albwasserversorgungsgruppe, to a storage tank for supplying fire-extinguishing water, a 220 m long pipeline of DN 100 ductile iron pipes was installed. A further ductile iron pipeline, of DN 150 size, then runs to the eastern portal of the Tunnel. Inserted along the way were a DN 100 underground hydrant and an additional outlet for fire-extinguishing water. This stretch of road carries a lot of traffic. The speedy installation of the ductile iron pipe system helped the work to stay on schedule.

Renovation of the Walten small hydroelectric power station

After a period of only 22 years in operation, the Walten small hydroelectric power station in the Passeiertal Valley in South Tyrol was completely renovated. All the main components such as the penstock pipeline, turbine, generator, water intake structure and de-sanding system were re-installed or re-constructed.

◆ The reason for this was the amendment to the law relating to the so-called "green certificates", which gives the operator, Elektrogenossenschaft Walten, an assurance of electricity being taken from the station for a period of 15 years at a guaranteed feed-in tariff of about 22 cents per KW/h.
With an annual output of around 4 million KWh, it will take only a few years to pay off the new capital investment.
Part of the new 1.6 km long penstock pipeline of DN 700 ductile iron pipes was laid in very rocky terrain.
The pipes used for the work were ductile iron drinking water pipes of wall-thickness class K 9 with restrained BLS® push-in joints and a cement mortar coating. The installation period for the pressure pipeline lasted from July to December 2009. In December the installation site was a completely wintry scene. However, ductile iron pipes can be installed in below-zero temperatures, snow, and ice. The refurbished small hydroelectric power station at Walten went back into operation in the spring of 2010.

NODIG 2011 in Berlin

Trenchless installation of ductile iron pipes

In connection with WASSER BERLIN INTERNATIONAL 2011 and the NODIG 2011 International Conference in Berlin, Berlin's water supply company, Berliner Wasserbetriebe, held the traditional Construction Site Day on 4 May. An interested national and international trade audience learnt about the current state of the art in trenchless installation techniques.

◆ The performance able to be provided by ductile iron pipes with a cement mortar coating (ZM-U) and the restrained BLS® push-in joint when the press-pull, Hydros and auxiliary pipe technique are used was demonstrated on six sites.
A world first, was the replacement of an old DN 300 sewer pressure pipeline by a new pipeline of DN 500 ductile iron pipes. The pipes installed were DN 500 ZMU PLUS pipes with an outline in the form of a straight-sided cylinder.
The old DN 300 pipeline was pressed out by means of a traction string guided in a DN 150 enclosing pipe, using a special technique and new machinery. Coupled on was an adapter connected to an upsizing head and the new DN 500 ductile iron pipes. Within the new DN 500 pipes, the soil encountered by the upsizing head due to the difference in the nominal sizes was transported back to the assembling pit by special augers in a DN 300 feed pipe.
It was a convincing demonstration of the innovativeness of the companies involved.

TERMINE

22–24 September 2011
26th Federal Congress of the BWK (Association of Water Management, Waste Management and Land Improvement Engineers), Wernigerode, Harz district

26–27 September 2011
DWA (German Association for Water, Wastewater a. Waste) 2011 Federal Conference, Berlin

17-18 October 2011
rbv / FGR® / EADIPS® 2011 Ductile Iron Pipes Seminar, Berlin

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