

ANCHORING OF AN OFFSHORE PIPELINE PROTECTION STRUCTURE

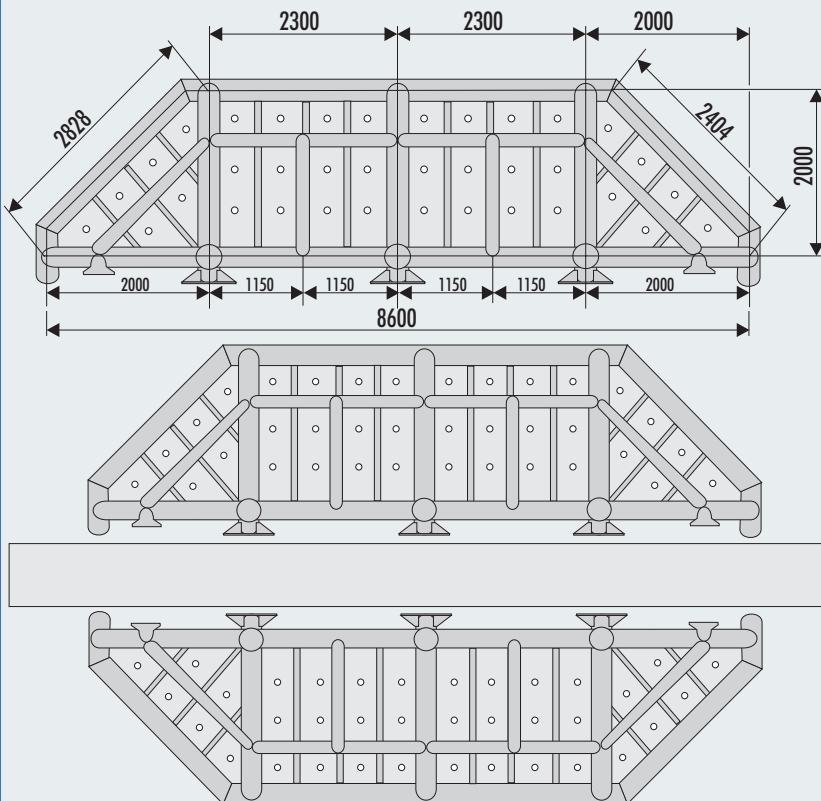
A total of 32 Platipus anchors were used to anchor down the pipeline tie-in protection structures at separate localities within the North Sea. (see figure 1)

An ultimate load of 35kN was required for each anchor point and due to the differing nature of the geology at both sites, two anchor specifications were designed. At the first site in the southern sector, cohesive material was experienced and a B06TB anchor complete with 4m of 8mm stainless steel compacted strand wire tendon, 300mm x 300mm stainless steel load plate and wedge grip was installed. The non-cohesive material found at the northern sector resulted in a S08EB anchor configuration being used. Both types of anchor were installed at an angle of 25° to a depth of 3m. Each anchor was proof loaded to 35kN and locked on to the structure. (see figure 2)

The anchors were installed 150m below sea-level using saturation divers. The installation equipment used included a multi-piece drive rod set driven by a heavy duty hydraulic breaker with quick release coupling hoses. Power to the equipment was supplied by a surface deepwater construction support vessel. The anchors were loadlocked using a Platipus hydraulic stressing kit adapted for subsea use. The anchor specification had a design life of 100 years.

ENGINEERING SYSTEMS - FACT FILE

Figure 1.



Soil Conditions:	Stiff grey clay-medium sand
Location:	North sea
Water Depth:	150m
Installation Method:	Divers
Design Life:	100 years
Required Load:	35kN/anchor

Figure 2.
Sea Anchor Layout

