

Cost standards indexation 2022

C684 *A guide to cost standards for dredging equipment 2009* gives the replacement value ex-works, yard or importer and exclusive of VAT, in Europe on 1 January 2009 for several types of dredging equipment.

As there is no specific European index for ship building and/or hull structures available, IADC has assessed the indexation 2022 using the following Eurostat indices:

- C242 (manufacture of tubes, pipes, hollow profiles and related fittings, of steel) for steel pipelines.
- C2211 (manufacture of rubber tyres and tubes, retreading and rebuilding of rubber tyres) for rubber pipelines and pressure hoses.
- C2511 (manufacture of metal structures and part of structures) for hull steel.
- C2811 (manufacture of engines and turbines, except aircraft, vehicle and cycle engines).
- C2813 (manufacture of other pumps and compressors).

The assessed indices that are shown in the table are all based on the appropriate weighted combinations of last years' Eurostat indices.

Group	CIRIA category	Description	Index 1-1-2022
a	100, 101, 610, 620, 630	Trailing suction hopper dredgers, side stone- dumping vessels, Inland, self-propelled hopper vessels (with suction or trailing pipe), sea-going, self-propelled dumping barges	119
b	200, 201, 202, 310, 320, 330	Cutter suction dredgers, suction dredgers, barge-loading suction dredgers, Barge-unloading dredgers	120
c	400, 401	Boosters	123
d	710, 711	Jack-ups	117
e	510, 511, 520, 521, 530, 621, 631, 632, 633	Backhoe dredgers, pontoon with excavators on tracks, grab dredgers, pontoons with cable cranes on tracks, bucket dredgers, inland, self-propelled hopper vessels (without suction or trailing pipe), dumping barges (not sea-going)	121
f	622, 810, 850	Inland hopper barges, pontoons, derrick barges	123
g	820, 821, 822, 830, 831, 832, 840	Multi-purpose pontoons, tugboats, high speed crew and survey launches	120
h	920, 931, 941, 91x	Steel pipelines	123
i	930, 942	Self-floating rubber pipelines, pressure hoses	113

Further background guidance on the original indexation and the process of updating the index is provided overleaf.

Annual indexation of the CIRIA cost standards for dredging equipment

As there is no Eurostat index for individual pieces of dredging equipment a composite index would best approximate changes in the cost of equipment.

In 2009, when the cost standards were published, the following composite index was set by IADC and accepted by the CIRIA project steering group.

	Steel structures C2511	Engines C2811	Pumps C2813	Rubber C2211	Hollow pipes C242
	%	%	%	%	%
TSHD	30	50	20		
CSD	20	40	40		
Boosters	20		80		
Jack ups	20	80			
Backhoe	50%	30	20		
Pontoon	100				
Multicat	20	40	40		
Steel pipe					100
Rubber				100	

Process of indexation

- IADC's Secretary General starts collecting Eurostat data end-February for the following indices:
 - C2211 (manufacture of rubber tyres and tubes, re-treading and re-building of rubber tyres)
 - C242 (manufacture of tubes, pipes, hollow profiles and related fittings, of steel)
 - C2511 (manufacture of metal structures and parts of structures)
 - C2811 (manufacture of engines and turbines, except aircraft, vehicle and cycle engines)
 - C2813 (manufacture of other pumps and compressors).

From: <http://ec.europa.eu/eurostat/web/short-term-business-statistics/data/database>

Producer prices in industry, domestic market – annual data (2015 = 100)

- Based on these individual indices the composite index is calculated. IADC started with Eurostat indices 2010 = 100. 2019 Eurostat only publishes the 2015 = 100 index. The 2015 =100 index is recalculated to 2010 = 100 index.
- The composite indices and the way of working are reviewed by IADC's indexation committee. Representatives of IADC members have a seat on this committee.
- After approval of the indices by the indexation committee a review is conducted by an independent dredging consultant.
- A letter with the result of the review is sent to CIRIA and IADC.
- IADC request CIRIA to publish the indexation as soon as possible.

Sustainability factor applicable on CIRIA Table 100 TSHD

The standard value of a TSHD can be increased by a sustainability factor $S = (1 + \text{GAS} + \text{DPF} + \text{SCR})$, with:

- SCR = 2% if selective catalytic reduction installations on each engine >130 kW have been installed (except on engines used solely for emergencies), and have been commissioned on the vessel, which can be proven by:
 - a commissioning report made by the SCR manufacturer OR EIAPP + NOx technical file for each engine
 - the design specifications of the SCR and Urea injection system must ensure that NOx emissions comply with IMO Tier III and Euro Stage V (or equivalent)
- DPF = 3% if diesel particle filters on each engine have been installed (except on engines used solely for emergencies) and have been commissioned on the vessel, which can be proven by:
 - a commissioning report made by the DPF manufacturer
 - the design specifications of the DPF system must ensure that Particulate Matter and Particle Number emissions are equivalent with or environmentally better than the required levels for Euro Stage V emissions standard for Inland Waterway vessels for $P \geq 1000$ kW
- GAS = 10% if the GAS installation has been commissioned on the vessel, which can be proven by:
 - a BV class notation 'dual fuel' (or equivalent).

Remarks

- A combination of multiple terms can be applied, up to a maximum sustainability factor of 115% (for GAS+DPF+SCR), with each term to be individually proven, except in following case:
- SCR+DPF = 5% if selective catalytic reduction installations and diesel particle filters have been installed on each engine (except on engines used solely for emergencies), which – in case it is not combined with a GAS installation – can alternatively be proven by:
 - a BV class notation 'ULEV' (or equivalent).
- The above-mentioned BV class notations 'dual fuel' and 'ULEV' are considered as defined on 1 December 2021. If their definition has changed since that date, additional proof could be required for new applications. As equivalent is considered such system executed in such a way that equivalent or better sustainability impact is achieved.