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# A Contract for “Just Digging a Hole”

## Abstract

In 1999 FIDIC published four new standard forms of contract: EPC Turnkey Projects; Plant and Design-Build with Design by the Contractor; Construction with Design by the Employer (the former FIDIC Red Book); and the Short Form of Contract. This new work does not meet specific dredging and reclamation work needs. Consequently, FIDIC formed a Task Group to examine the possibility of a contract customised for the dredging industry. In the tradition of FIDIC, the new “FIDIC Form of Contract for Dredging and Reclamation Works” has been carefully developed by this Task Group and is now available in a test edition.

Special thanks go to Philip Jenkinson from WS Atkins (Dredging Task Group Leader) for his valuable comments, and to the other members of the FIDIC Dredging Task Group: Tony Sanders of Mouchel, Edward Corbett of Corbett & Co. on behalf of FIDIC and Pieter Boer of Royal Boskalis Westminster on behalf of IADC.

## Introduction

For the smooth execution of a dredging project one cannot do without a strong and clear contract. The objectives of this contract should be (Bray et al.):

- to describe accurately the work to be done and the conditions under which it is to be done;
- to apportion risk; and
- to provide a fair and equitable method of payment for that work when it is completed satisfactorily.

FIDIC, the International Federation of Consulting Engineers, has a long history in publishing standard forms of contract for engineering construction. FIDIC was founded in 1913 as an association for national member associations in engineering and has at present a membership coming from nearly 70 countries. Their first standard forms were published in 1957. Editions in 1969 and in 1977 of the so-called Red Book included explicit provisions for dredging and reclamation works.

Constantijn Dolmans graduated from Leiden University in fiscal law (1995) and has a professional degree in insurance. He had worked as a cost-controller for BFI (currently SITA, a waste company) since 1992, when in 1997 he joined IADC. One of his first tasks was to comment upon FIDIC’s draft for a new “Conditions of Contract for Construction” and he then became a member of FIDIC’s Dredging and Reclamation Contract Task Group.



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However, the Fourth Edition of the Red Book in 1987 did not include these dredging provisions. To meet the specific requirements of dredging projects, IADC (International Association of Dredging Companies) published a “Users Guide” to this Fourth Edition of FIDIC’s Red Book in 1990. This cooperation between the IADC and FIDIC provided the basis for developing the present publication (Figure 1).

## THE NEW FIDIC CONTRACTS

In 1999 FIDIC published four new standard forms of contract, the Conditions of Contract for:

- EPC Turnkey Projects;
- Plant and Design-Build with Design by the Contractor;
- Construction with Design by the Employer (the former FIDIC Red Book); and
- the Short Form of Contract.

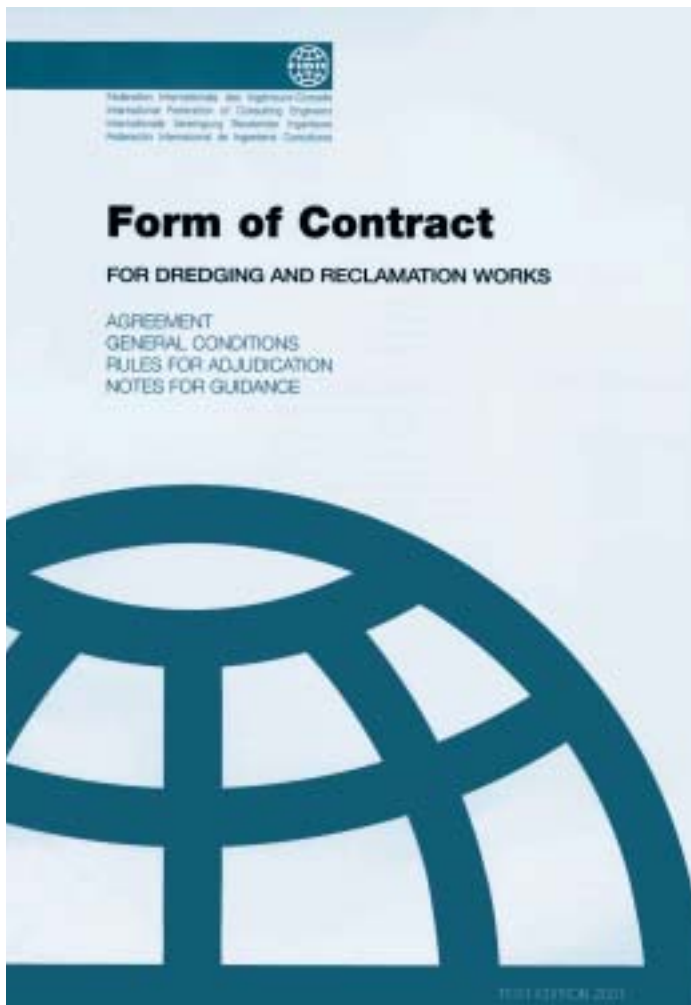


Figure 1. The cover of the new "FIDIC Form of Contract for Dredging and Reclamation Works", Test Edition 2001.

In the past, the Fourth Edition of the Red Book has often been used as a basis for contracts for dredging and reclamation works. However, IADC felt that its successor — the new "Contract for Construction with Design by the Employer" — was not suitable for application to dredging and reclamation works. The new Contract for Construction has an extensive size. One might say, "It is just a little bit too large for just digging a hole under water". Furthermore, in this new Contract for Construction, no special attention is given to the wide variety of circumstances in dredging and reclamation works.

The dredging industry is a specialised, capital-intensive sector of the construction industry. The execution of a dredging project not only necessitates technical knowledge associated with civil engineering construction projects but also maritime expertise about the operation of a dredging vessel and compliance with international maritime shipping law. The logistics of ensuring continuous sufficient work for the specialised fleet coupled with the massive capital investment and

high operational costs inevitably means higher than normal risks in the event of change on a project. The very nature of dredging activities, i.e. at various depths underwater, creates difficulties in obtaining accurate information regarding sub-soil conditions. Climatic and physical operating conditions such as wave height have a higher impact than on most other construction operations, particularly with regard to safety for workers.

#### THE FIDIC DREDGING CONTRACT; A LEGAL FRAMEWORK

The need for a special short and simple dredging contract was clear. IADC contacted FIDIC about the possibility of a separate FIDIC dredging contract and a Task Group was formed. On the strong basis of FIDIC's Short Form of Contract, the Task Group produced the "FIDIC Form of Contract for Dredging and Reclamation Works". The test edition of this dredging contract was published in June 2001. The formal first edition is to be published a year later, taking into consideration the comments that may arise from the test edition.

The contract is published under full responsibility of FIDIC and the ultimate decisions on the form and content of the document rests with FIDIC's Executive Committee. Input to the contract has been given, not only by IADC, but also by consulting engineers, employers and organisations like the World Bank.

The aim has been to produce a fair, balanced and straightforward document which includes all essential commercial provisions. It may be used for all types of dredging and reclamation work and ancillary construction with a variety of administrative arrangements.

Under the usual arrangements for this type of contract, the Contractor constructs the Works in accordance with design provided by the Employer or by his Engineer. As in the construction industry in general, more and more works are contractor-designed. Therefore, the form may easily be altered into a contract that includes, or wholly comprises, contractor-designed Works.

The essential part of a dredging contract is formed by the description of the activity itself; the specifications, drawings and design of the work. The "FIDIC Form of Contract for Dredging and Reclamation Works" provides a legal framework to this. It governs the general obligations and responsibilities of the contracting parties. The document starts with an Agreement — a simple document that incorporates the tenderer's offer and its acceptance. All relevant data should be included in the Appendix to the Agreement. References to documents forming part of the contract such as the specification and the drawings are also made in this

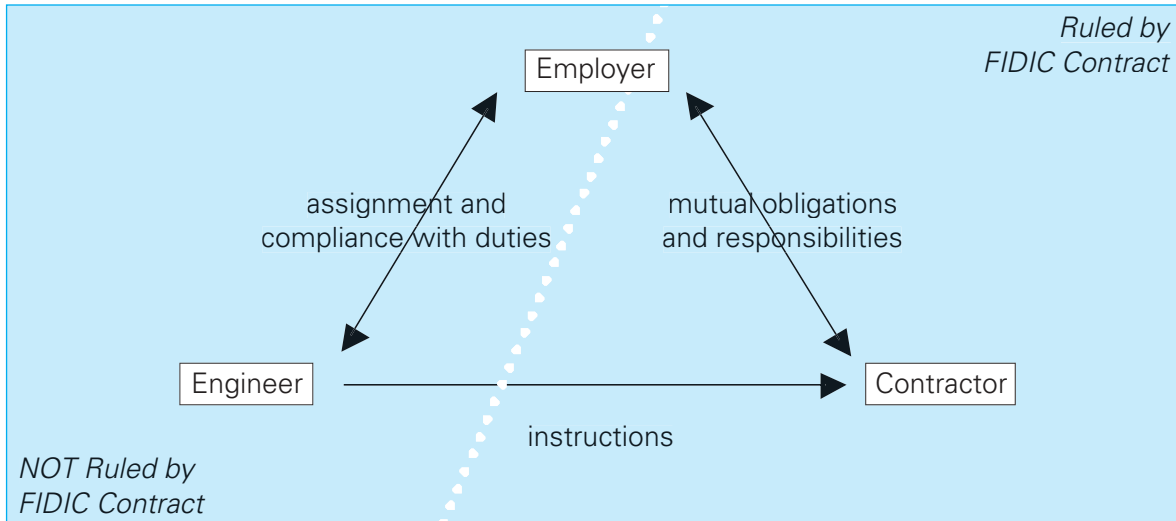


Figure 2. Relationships between parties to the Contract and the Engineer.

Appendix. The General Conditions are expected to cover all essential elements of the legal framework.

Nevertheless, every situation is unique. Modifications may be required in some jurisdictions or may be necessary to suit special circumstances. Users are able to introduce Particular Conditions if they wish to handle such special cases or circumstances.

#### CONTRACT PARTIES AND THE ENGINEER

The “FIDIC Form of Contract for Dredging and Reclamation Works” is a two-party contract between the Employer and the Contractor. However, contrary to FIDIC’s Short Form, provision is made for an Engineer, as is usual for dredging and reclamation works. Although this Engineer is not a party to the contract, he has an important role in the execution of the work (Figure 2).

##### The Role of the Engineer

The FIDIC Dredging Form gives the Engineer several duties and authorities, such as:

- approval of contractor’s design;
- the authority to instruct variations to the Contractor;
- the issuing of Taking Over Certificates; and
- the certification of payments.

This important role — especially when executed by an experienced engineer — is to the benefit of both Employer and Contractor. The Employer is ensured of expert advice and the Contractor has an experienced partner with whom to work, resulting in a more cost-efficient execution of the dredging project. The issuing of Taking Over Certificates and certification of payments by the Engineer may often be necessary in projects that are externally financed by government bodies or international organisations such as the World

Bank. However, if there is no need for an Engineer in the Contract — in smaller projects an experienced Employer may want to act for himself directly — the FIDIC Dredging Form can be easily adjusted to a contract without an Engineer.

In line with the other major FIDIC Contracts, the Engineer is no longer expected to be an impartial person or organisation. After years of discussion, FIDIC broke with the tradition of the impartial Engineer. The close relationship between the Employer, who pays the bill, and the Engineer made the independence of the Engineer questionable in practice. It does not mean that in the new FIDIC Contracts the Engineer may do whatever he wants. The Dredging Form states:

“The Engineer and any assistants shall exercise their duties and authority in a fair manner in accordance with the Contract”.

If disputes or differences between the Employer and the Contractor, including dissatisfaction with decisions of the Engineer, cannot be settled amicably, the FIDIC Dredging Form provides for resolution of the dispute by a Dispute Adjudication Board (DAB). This DAB has in fact taken over the impartial decisional role of the Engineer in case of disputes. Should the decision of the DAB not satisfy one or both parties to the Contract, the FIDIC Dredging Form provides for international arbitration under the Rules of Arbitration of the International Chamber of Commerce.

#### RISKS AND RESPONSIBILITIES

Within the execution of a dredging project there may never be a situation in which all required information is available. Unexpected events, whether caused by nature or people, may occur. These uncertain factors

# **CONTENTS of the FIDIC FORM OF CONTRACT for DREDGING and RECLAMATION WORKS**

## **AGREEMENT**

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in the execution of construction projects are risks. The purpose of any contract is to allocate these risks between the parties to the contract. Risks can best be borne by the party that is best able to handle the risks. Technical risks, for instance, like the safety of a dredging vessel, may be best controlled by the Contractor, whereas an Employer may have better knowledge of the specific conditions of the Site where the project has to be executed (Figure 3).

Of course, the best means of avoiding unexpected situations is by informing each other as adequately as possible. Therefore the FIDIC Dredging Form gives the Employer the obligation to supply the Contractor with all Site data relevant to the execution of the work prior to tendering. The Contractor is responsible for the interpretation of these data and for making thorough enquiries as far as practicable taking into account cost and time.

Sometimes one party can more easily fulfil an essential condition for the execution of the project than the other party. In dredging projects the Employer, for instance a port authority, can often obtain the permits and licences needed for the execution of the work more readily. The FIDIC Dredging Form therefore makes the Employer responsible for this activity.

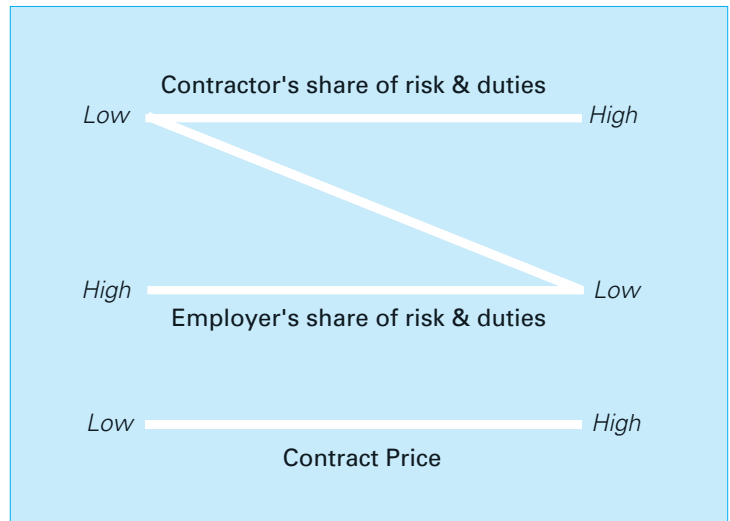


Figure 3. Contractor's and Employer's shares of the risks and duties: the more risk for the Contractor the higher the price.

Figure 4. Major dredging projects today often involve multiple vessels from several companies, working 24 hours a day, 7 days a week. The FIDIC Form of Contract addresses the need for clarity in contractual agreements amongst all parties.



Of course, circumstances differ from project to project (Figure 4). The allocation of risk must fit the specific project and the General Conditions of the FIDIC Dredging Form should be adjusted by Particular Conditions when necessary. However, the allocation of risk should remain fair and practicable. In a project where the Employer is responsible for almost everything, there is little incentive for optimal performance by the Contractor. On the other side of the balance, an Employer that transfers all the risks and duties to the Contractor will have to pay a very high price. In that case there is little flexibility for variation and the project will certainly be expensive.

### Liability

The fact that one party bears the risk for an event that happens or has not fulfilled his duty — in other words that party is responsible — does not automatically mean the party is liable for the consequences and that these consequences result in a valid claim under the contract. The Dredging Form is clearer on this subject than the other FIDIC Forms of Contract. A clear view of risks and liability is of course very important in the execution of dredging projects where small things can have major consequences in time and money.

Responsibility may lead to a liability when a party suffers a loss as a consequence of inappropriate action of the responsible party. Sometimes, when a party suffers a loss as a consequence of certain events like adverse climatic conditions, this may also lead to liability of the responsible party (Figure 5). When a party is liable he should indemnify the other party for his loss according to the conditions of the contract. The way the indemnification — a valid claim — should be calculated may already have been agreed in the contract, particularly in the Appendix.

Insurance arrangements may cover the indemnifications that have to be paid by one party to the other. The general provision in the FIDIC Dredging Form is that the Contractor effects these insurances before the work starts. The FIDIC Dredging Form takes care of the specific needs in dredging projects related to insurance.

In general, the marine insurance policy of the Contractor will cover hull and machinery and often liability for the dredging vessels. For dredging works, insurance of the Works, Materials, Plant and Fees (as in a normal Construction All-Risk or Contract Works Insurance) is not possible. You cannot insure a hole under water. But when non-dredging works are involved, the FIDIC Dredging Form also requires insurance of these during the construction. Of course, damage to other property of the Employer, death or injury to the Employer, Engineer or their personnel and third-party liability should also be insured under the FIDIC Dredging Form.

# Members of the FIDIC Dredging Task Group

**Philip Jenkinson** graduated from Oxford University in Engineering Science, qualified as a Chartered Civil Engineer, and is now a Principal Consultant with WS Atkins. He became Task Group leader for FIDIC's Short Form of Contract and most recently leader of the Dredging and Reclamation Contract Task Group.

**Tony Sanders** OBE is a chartered quantity surveyor and Director of Dispute Management of Mouchel Consulting, specialised in civil engineering. Prior to joining the Dredging Task Group, he worked with FIDIC on the Orange Book and the Short Form of Contract. He is a member of the FIDIC President's List of Approved Adjudicators and the FIDIC List of Experts.

**Edward Corbett** MA MSc FCI Arb, studied law at Oxford University and is the principal of Corbett & Co, a practice specialising in international construction law. He authored *FIDIC Fourth Edition - A Practical Legal Guide* and is now working on a Guide to the Orange Book. He is a member of the International Bar Association's committee on the FIDIC contract as well as the Task Group for the Short Form and Dredging Form of Contracts.

**Pieter Boer** graduated as civil engineer from Delft University (1964), started at the Public Works Department of Rotterdam. He then switched to Hydronomic bv and continued his career within the Royal Boskalis Westminster group, becoming Director of Boskalis International in 1986. Retired from Boskalis, he is currently chairman of IADC's legal committee and as such was asked to join the Dredging Task Group.

**Constantijn Dolmans**, author of this article, is Assistant to the Secretary General of the IADC and as such was invited to be a member of the Dredging Task Group.



Figure 5. Adverse climatic conditions, be it tropical storms or icy waters, as seen here, can have an influence on the risks involved in a dredging operation.

**Defects liability**

A specific responsibility that may lead to liability of the Contractor is a defect of the work. As under the other FIDIC Forms, the Contractor has to remedy at no cost to the Employer any defects due to the Contractor’s Design, Materials, Plant or his (lack of) workmanship.

Normally, this obligation ends one year after taking over the project or the relevant part of the project. However, remedying defects after demobilisation of high value dredging equipment may lead to unreasonably high costs for the Contractor if remobilisation of this equipment is required. Furthermore, natural processes may also have their effect on the completed dredging work which may lead to defects that could not have been foreseen. Therefore, under the FIDIC Dredging Form, the Contractor has no obligation to remedy defects in dredging works after the completion date of these works. This does not mean that the Contractor will not be held liable for the defect after completion. When the Contractor is liable, he may still have to indemnify the Employer.

When the contract involves more than dredging works only, a clear distinction should be made in the specifications and the drawings between dredging works and non-dredging works. The FIDIC Dredging Form explicitly

Figure 6. Risks and responsibilities in the FIDIC Dredging Form.

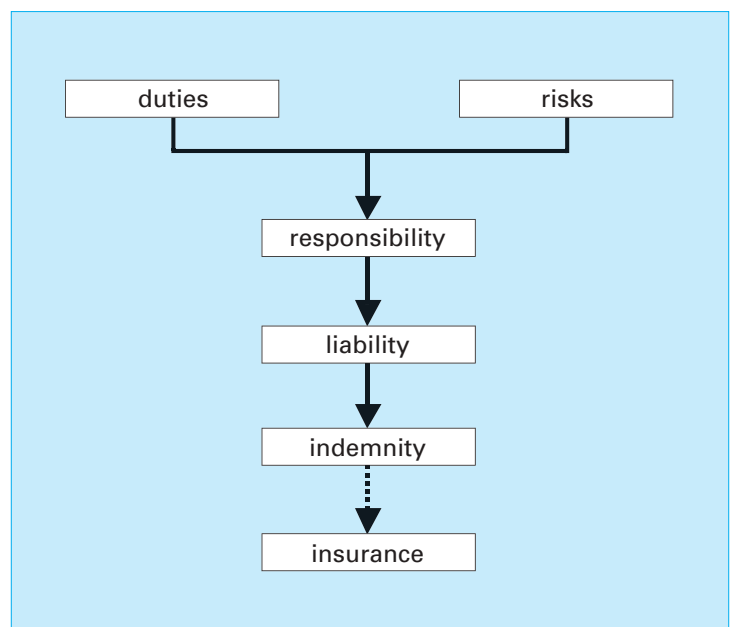




Figure 7. Dredging works are often a part of larger construction projects, such as this fixed link bridge in Argentina. The FIDIC contract asks for a clear distinction between dredging and non-dredging works.

asks for such a distinction (Figure 7). It may appear to be in favour of the Contractor that there is no time period allocated for notification of defects after completion of dredging works. However, this condition is also very much for the benefit of the Employer, as the existence of a defects notification period for dredging works would certainly increase the contract price. Nevertheless, the Employer has to be indemnified when he suffers a loss as a consequence of defects in dredging works due to one of the Contractor's responsibilities.

## Conclusion

Thanks to the cooperation of FIDIC and IADC as well as other organisations and persons, there is once again a standard construction contract that meets the special requirements of dredging and reclamation projects. In large projects where dredging and reclamation are just a part of the work, one of the other FIDIC contracts may still be suitable. However, even in these cases, the straightforward provisions and clear conditions of the FIDIC Dredging Form may help to design particular conditions for these standard contracts to meet specific dredging needs.

The "FIDIC Form of Contract for Dredging and Reclamation Works" creates a fair and balanced legal framework for the optimal execution of dredging and dredging related projects. In general the provisions will suit most dredging projects. When needed due to specific

circumstances, the FIDIC Dredging Form can easily be adjusted and particular conditions can be added. In addition, comments from users may in the future improve the FIDIC Dredging Form even further.

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