

# INTERNATIONAL STANDARD



# 4051

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

## Shipbuilding – Inland vessels – Steering gear – Values of torques

*Construction navale – Bateaux de navigation intérieure – Servomoteurs – Valeurs des moments de rotation*

First edition – 1977-11-01

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UDC 629.122.014.68 : 62-526

Ref. No. ISO 4051-1977 (E)

**Descriptors :** shipbuilding, inland navigation, steering control devices, servomotors, torque.

## FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4051 was developed by Technical Committee ISO/TC 8, *Shipbuilding*, and was circulated to the member bodies in June 1976.

It has been approved by the member bodies of the following countries:

Austria	Hungary	Poland
Belgium	India	Romania
Brazil	Ireland	United Kingdom
Chile	Italy	U.S.S.R.
Czechoslovakia	Mexico	Yugoslavia
France	Netherlands	
Germany	Philippines	

No member body expressed disapproval of the document.

# Shipbuilding – Inland vessels – Steering gear – Values of torques

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the values of torques for steering gears controlling one or more rudders (rotating propelling nozzles), used in vessels for inland waterways.

## 2 DEFINITION

For the purposes of this International Standard, the following definition applies :

**nominal torque** : The greatest calculated working moment developed by the steering gear and characterizing its type size.

## 3 TECHNICAL CHARACTERISTICS

### 3.1 Torques

Torques of steering gears shall have the values indicated in the table.

TABLE – Torque values

Nominal torque, MN·m
$6,3 \times 10^{-3}$
$10,0 \times 10^{-3}$
$16,0 \times 10^{-3}$
$25,0 \times 10^{-3}$
$40,0 \times 10^{-3}$
$63,0 \times 10^{-3}$
$100,0 \times 10^{-3}$ *

\* For electro-hydraulic steering only.

### 3.2 Swing of the rudder

The greatest working angle of swing of the rudder equals  $35^\circ$  or  $90^\circ$  to either side of the zero position.