



# TÜRK LOYDU

## TYPE APPROVAL CERTIFICATE

This Certificate consists of 3 pages.

This is to certify that the

### NORMAL AND HIGHER STRENGTH HULL STRUCTURAL STEELS

With type designations

ERDEMİR 3701 (TL-A),	ERDEMİR 3702 (TL-B),	ERDEMİR 6704 (TL-D)
ERDEMİR 6705 (TL-E),	ERDEMİR 3732 (TL-A32),	ERDEMİR 3736 (TL-A36)
ERDEMİR 4732 (TL-D32),	ERDEMİR 4736 (TL-D36),	ERDEMİR 5732 (TL-E32)
ERDEMİR 6732 (TL-F32),	ERDEMİR 5736 (TL-E36),	ERDEMİR 6736 (TL-F36)

Manufactured by

**EREĞLİ DEMİR ve ÇELİK FABRİKALARI T.A.Ş.**

Is found to comply with  
Türk Loydu's Rules for Classification of Steel Ships; Section II- Material Rules

**Application** : Normal And Higher Strength Hull Structural Steels  
(Plates and strips)

**Design** : EREĞLİ DEMİR ve ÇELİK FABRİKALARI T.A.Ş.

**Sizes** : See Appendix I

**Address of Manufacturer** : Uzunkum No: 7, 67330 Kdz. Ereğli / Zonguldak - TÜRKİYE

**Place and date** : İSTANBUL / 29.03.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 27.12.2025.

**Emrah SÖĞÜTÇÜ**  
New Building Division Manager



**Product description:**

**Type Designation**

ERDEMİR 3701 (TL-A), ERDEMİR 3702 (TL-B), ERDEMİR 6704 (TL-D)  
ERDEMİR 6705 (TL-E), ERDEMİR 3732 (TL-A32), ERDEMİR 3736 (TL-A36)  
ERDEMİR 4732 (TL-D32), ERDEMİR 4736 (TL-D36), ERDEMİR 5732 (TL-E32)  
ERDEMİR 6732 (TL-F32), ERDEMİR 5736 (TL-E36), ERDEMİR 6736 (TL-F36)

**Materials used** : See Appendix I

**Application/ Limitation (Approval conditions):**

Normal and higher strength hull structural steels to be used in ship according to Türk Loydu rules.

**Documentation**

Test Report from ERDEMİR Mechanical Test Lab.

**Test carried out (and results) :**

Type Tests have been carried out according to Türk Loydu's Rules for Classification of Steel Ships; Section II-Material Rules

**Place of test carried out**

ERDEMİR Mechanical Test Laboratory  
Uzunkum No: 7, 67330  
Kdz. Ereğli / Zonguldak - TÜRKİYE

**Marking of product:** The product to be marked same as below mentioned.

- Manufacturer name and trade mark,
- Type designation
- Size

  
**Hasan HABİBOĞLU**  
Surveyor

This certificate is subject to terms and conditions described below:

- Any significant change in design or construction may render this Certificate invalid. Type Approval Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to the equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and relevant international instruments that apply to it.



# TÜRK LOYDU

Certificate No: TO.DEB.21-0605

## ANNEX I

Table: 01- Steel Plates

### Normal and Higher Strength Steels

Type or Grade	Steelmaking <sup>1</sup>	Fine Grain & Deoxidation	Delivery Condition <sup>2</sup>	Max. Thickness (mm)	Z quality
TL-A	BOC,CC	Al+Si	AR	70	-
TL-B	BOC,CC	Al+Si	AR	70	-
TL-D	BOC,CC	Al+Si	N	70	-
TL-D	BOC,CC	Al+Si	CR	7,99	-
TL-E	BOC,CC	Al+Si&Nb	N	70	-
TL-A32	BOC,CC	Al+Si&Nb	CR	70	-
TL-A36	BOC,CC	Al+Si&Nb	CR	70	-
TL-D32	BOC,CC	Al+Si&Nb	CR	7,99	-
TL-D36	BOC,CC	Al+Si&Nb	CR	7,99	-
TL-D32	BOC,CC	Al+Si&Nb	N	70	-
TL-E32	BOC,CC	Al+Si&Nb	N	70	-
TL-F32	BOC,CC	Al+Si&Nb	N	70	-
TL-D36	BOC,CC	Al+Si&Nb	N	70	-
TL-E36	BOC,CC	Al+Si&Nb	N	70	-
TL-F36	BOC,CC	Al+Si&Nb	N	70	-

Table:02-Strips

### Normal and Higher Strength Steels

Type or Grade	Steelmaking <sup>1</sup>	Fine Grain & Deoxidation	Delivery Condition <sup>2</sup>	Max. Thickness (mm)	Z quality
TL-A	BOC,CC	Al+Si	CR	15	-
TL-B	BOC,CC	Al+Si	CR	15	-
TL-D	BOC,CC	Al+Si	N	15	-
TL-D	BOC,CC	Al+Si	N	7,99	-
TL-E	BOC,CC	Al+Si&Nb	N	15	-
TL-A32	BOC,CC	Al+Si&Nb	CR	15	-
TL-A36	BOC,CC	Al+Si&Nb	CR	15	-
TL-D32	BOC,CC	Al+Si&Nb	CR	7,99	-
TL-D36	BOC,CC	Al+Si&Nb	CR	7,99	-
TL-D32	BOC,CC	Al+Si&Nb	N	15	-
TL-E32	BOC,CC	Al+Si&Nb	N	15	-
TL-F32	BOC,CC	Al+Si&Nb	N	15	-
TL-D36	BOC,CC	Al+Si&Nb	N	15	-
TL-E36	BOC,CC	Al+Si&Nb	N	15	-
TL-F36	BOC,CC	Al+Si&Nb	N	15	-

<sup>1</sup>BOC: Basic Oxygen Converter CC: Continuous Cast,

<sup>2</sup>AR: As Rolled, N: Normalized, CR: Controlled Rolled

  
Hasan HABİBOĞLU  
Surveyör