ZEETUG®

Zero Emission Electric Tugboat

OPERATIONAL
STATUS REPORT

ZEETUG FLEET | 3x ZEETUG30 and 1x ZEETUG45

Designer & Builder

NAVTEK

NAVTEK NAVAL TECHNOLOGIES INC.

Report date: 31.05.2026

Environment Friendly Particulars

ZEETUGs are the marine vessels that completely eliminates GHG emission which is harmful to both human and enviroment, reduces noise pollution to its minimum level, having low heat emission.

They are designed with the perpespective of optimization of different aspects; operational efficiency and easiness, environmental effects, providing healthy working conditions for the crew by means of erasing air and noise pollutions which are also detrimental for enviroment.

- Zero GHG Emission
- Zero Particle Emission
- ZEETUG has %23 less noise than her equivelant with diesel engine.
- No waste heat of exhaust.
- Waste heat stemming from coolant is %85 less.

Awards

FOR HELPING THE ENVIRONMENT WINNER 2020

TUG OF THE YEAR WINNER 2021

GREEN WORLD AWARDS 2021

EXISTING SOLUTIONS ZERO EMISSION @BERTH RUNNER UP 2022

THE BEST INVENTIONS REDUCING MARITIME EMISSIONS 2023

www.zeetug.com

NV712-ZEETUG30

2256 DAYS in operation

World's first Zero-emissions, full-electric Harbor Tugboat GISAS POWER (ZEETUG30) has completed 2256 days in operation.

This report indicates the important figures within this period that explains the total efficiency of the project.

www.zeetug.com

NV712-GİSAŞ POWER (ZEETUG30)

Basic Information

ZEETUG®
www.zeetug.com

Keel Laying
10 January 2018

Delivery (in service)
27 March 2020

First class annual survey
03 March 2021

Total time in operation
2256 days

Total actual operational days
1922 days

Total operation number (sortie)
5249

Total e-motor run time
9274 hours

Total time off (of maintenance and/or repair)
1008 hours (2,18%)

Total charging
1.718.026 kWh

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

NV712-GİSAŞ POWER (ZEETUG30)

Efficiency Figures

ZEETUG®
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Saved CO_2 (MDO vs Electric)
1221.6 t

Saved CO_2 (MDO vs Electric)
197.6 t per annum

Saved NO_X (MDO vs Electric)
3.4 t

Saved NO_X (MDO vs Electric)
0.5 t per annum

Total Fuel Cost (Energy) OPEX savings (MDO vs Electric)
30%

Total Maintenance & Repair Cost OPEX savings (MDO vs Electric)
85%

Designer & Builder
NAVTEK NAVAL TECHNOLOGIES INC.

NV717-ZEETUG30

1138 DAYS
in operation

Zero-emissions, full-electric
Harbor Tugboat GISAS POWER II (ZEETUG30)
has completed 1138 days in operation.

This report indicates the important figures within this
period that explains the total efficiency
of the project.

www.zeetug.com

NV717-GİSAŞ POWER II (ZEETUG30)

Basic Information

ZEETUG®
www.zeetug.com

Keel Laying
04 December 2021

Delivery (in service)
19 April 2023

First class annual survey
11 March 2024

Total time in operation
1138 days

Total actual operational days
740 days

Total operation number (sortie)
1861

Total e-motor run time
3407 hours

Total time off (of maintenance and/or repair)
501 hours (2,82%)

Total charging
578.337 kWh

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

NV717-GİSAŞ POWER II (ZEETUG30)

Efficiency Figures

ZEETUG®
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Saved CO_2 (MDO vs Electric)
411.2 t

Saved CO_2 (MDO vs Electric)
131.9 t per annum

Saved NO_X (MDO vs Electric)
1.17 t

Saved NO_X (MDO vs Electric)
0.37 t per annum

Total Fuel Cost (Energy) OPEX savings (MDO vs Electric)
30%

Total Maintenance & Repair Cost OPEX savings (MDO vs Electric)
85%

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

NV720-ZEETUG30

1062 DAYS in operation

Zero-emissions, full-electric
Harbor Tugboat GISAS POWER III (ZEETUG30)
has completed 1062 days in operation.

This report indicates the important figures within this
period that explains the total efficiency
of the project.

www.zeetug.com

NV720-GİSAŞ POWER III (ZEETUG30)

Basic Information

ZEETUG®
www.zeetug.com

Keel Laying
30 December 2021

Delivery (in service)
04 July 2023

First class annual survey
18 April 2024

Total time in operation
1062 days

Total actual operational days
823 days

Total operation number (sortie)
2116

Total e-motor run time
4188 hours

Total time off (of maintenance and/or repair)
477 hours (2,41%)

Total charging
731.363 kWh

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

NV720-GİSAŞ POWER III (ZEETUG30)

Efficiency Figures

ZEETUG®
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Saved CO_2 (MDO vs Electric)
520 t

Saved CO_2 (MDO vs Electric)
178.7 t per annum

Saved NO_X (MDO vs Electric)
1.48 t

Saved NO_X (MDO vs Electric)
0.50 t per annum

Total Fuel Cost (Energy) OPEX savings (MDO vs Electric)
30%

Total Maintenance & Repair Cost OPEX savings (MDO vs Electric)
85%

Designer & Builder
NAVTEK NAVAL TECHNOLOGIES INC.

NV719-ZEETUG45

958 DAYS
in operation

Zero-emissions, full-electric
Harbor Tugboat GISAS POWER IV (ZEETUG45)
has completed 958 days in operation.

This report indicates the important figures within this
period that explains the total efficiency
of the project.

NV719-GİSAŞ POWER IV (ZEETUG45)

Basic Information

ZEETUG®
www.zeetug.com

Keel Laying
28 February 2022

Delivery (in service)
16 October 2023

First class annual survey
10 October 2024

Total time in operation
958 days

Total actual operational days
844 days

Total operation number (sortie)
1995

Total e-motor run time
2465 hours

Total time off (of maintenance and/or repair)
540 hours (2,66%)

Total charging
610.217 kWh

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

NV719-GİSAŞ POWER IV (ZEETUG45)

Efficiency Figures

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Saved CO_2 (MDO vs Electric)
433.9 t

Saved CO_2 (MDO vs Electric)
165.3 t per annum

Saved NO_X (MDO vs Electric)
1.23 t

Saved NO_X (MDO vs Electric)
0.47 t per annum

Total Fuel Cost (Energy) OPEX savings (MDO vs Electric)
30%

Total Maintenance & Repair Cost OPEX savings (MDO vs Electric)
85%

Designer & Builder
NAVTEK
NAVTEK NAVAL TECHNOLOGIES INC.

ZEETUG®

Zero Emission Electric Tugboat

www.zeetug.com

Designer & Builder

NAVTEK

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