arctech
We make you break the ice.
NB 506 & 507 MIBSV Arkutun Dagi - Sovcomflot
NB 506 & 507

- Contract for 2 vessels signed 16.12.2010
- NB 506 original delivery time April 2013 - changed to December 2012
- NB 507 delivery time April 2013

- Customer: OAO Sovcomflot, Russia
- Charterer: Exxon Neftegas ltd
- Technical Mgmnt: Unicom Management Services (Cyprus) ltd
Sakhalin 1 operations development

- **2001**: Sakhalin-1 Consortium declares the project commercial and the Russian Federation approves the declaration, formally ending the exploration period.
- **2004**: Russian government approves the Technical and Economic Substantiation for Construction, allowing Sakhalin-1 to begin full-scale construction of project facilities.
- **2005**: Production startup at the Chayvo field in October.
- **2013**: Development startup for Berkut platform at the Arkutun-Dagi field
- **2014**: Production start in Arkutun-Dagi
Sakhalin 1 operation area

OVERVIEW

Odoptu

Kilometers

Berkut

Oil Line to DeKastri

Val

Gas export pipeline to Japan

Onshore Processing Facility

Chayvo

Arkutun - Dagi

Arkutun - Dagi

Berkut

Union of Soviet Socialist Republics

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Reference vessel

- The concept is based on NB 504 (Aker Yards), Fesco Sakhalin – Icebreaking offshore supply and standby vessel delivered 2005
- NB 504 was sold to Sovcomflot 2010 and sails today under the name “SCF Sakhalin”
- NB 504 has been proven to be the most effective icebreaking supply vessel in the area.
Operation conditions

- Temperature average -20…+20 °C, extreme -40…+35 °C
- Wind average 4..8 m/s extreme 12 m/s and occasionally short cyclones
- Sea current and ice drift up to 2 kn
- Ice >1 m, ridges
NB 506 & 507
Technical data
# Main parameters

## MAIN DIMENSIONS
- **Length oa**: abt. 99.9 m
- **Breadth**: abt. 21.2 m
- **Draugth**: 7.9 m
- **Depth to main deck**: 11.0 m

## MACHINERY
- **Main Engines**: Wärtsilä 2x12V32, 2x6L32, total power 18 MW
- **Propulsion units**: Azipod 2 pcs total power 13 MW
- **Bow thrusters**: 2 x 1.3 MW

## PERFORMANCE
- **Speed**: 15 kn
- **Ice breaking**: 1.7 m level ice (first year ice), ridges of 20 m depth, ice management for platform
- **Endurance**: 40 days
Classification

CLASSIFICATION: DUAL CLASS LR & RMRS

• LR:
  – +100A1 Icebreaker, Offshore Tug/Supply Ship, Fire-Fighting Ship 1 (Total monitor discharge capacity 2400 m³/h) with water spray, WDL (5,0tons/m² Aft to Fr. 68), RD (Brine 2.0t/m³; Mud 2.0t/m³), IWS*, Winterisation H(-35) B(-35), +LMC, UMS, DP (AM), NAV1, OIL RECOVERY, EP, ShipRight ACS(B)
  – descriptive notations: COMF –C (3) (DNV), Standby Vessel (195) (DNV), Ice Class (DNV Icebreaker ICE – 10)

• RMRS:
  – KM(*) Icebreaker7[1] EPP AUT1 OMBO FF3WS DYNPOS-2 supply vessel
Capacities

DEADWEIGHT abt. 3950 ton
GROSS TONNAGE abt. 7100

CARGO CAPACITIES
Deck cargo, area 1000 ton, 700 m2
Cargo liquids & bulk: 1750 ton
- Dry bulk (two types, 6 tanks)
- Oil base mud
- Diesel oil
- Potable water
- Brine liquid
- Base oil
- Drill water
- Oil recovery

ACCOMODATION
Crew 22+28 persons, (LSA = 50 persons)
Rescue 195 persons
Design & Production
Project execution schedule
Design
Cooperation with Vyborg Shipyard

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BASIC DESIGN
DETAIL DESIGN
BLOCK FABRICATION
BLOCK OUTFITTING
HULL ASSEMBLY
AREA OUTFITTING
COMMISSIONING

Vyborg Shipyard

- Block Fabrication
- Block Outfitting

- 37 blocks manufactured in Vyborg
- 5 blocks in Helsinki
NB 506 blocks

Blocks to be built in Helsinki

Blocks to be built in Vyborg
Block stage – production start (7/2011)
Block stage
Keel laying 1/2012)
Hull stage
Launching (6/2012)