



Numarine 37XP-08 Project

Sea Trial Report on Measured Noise Levels

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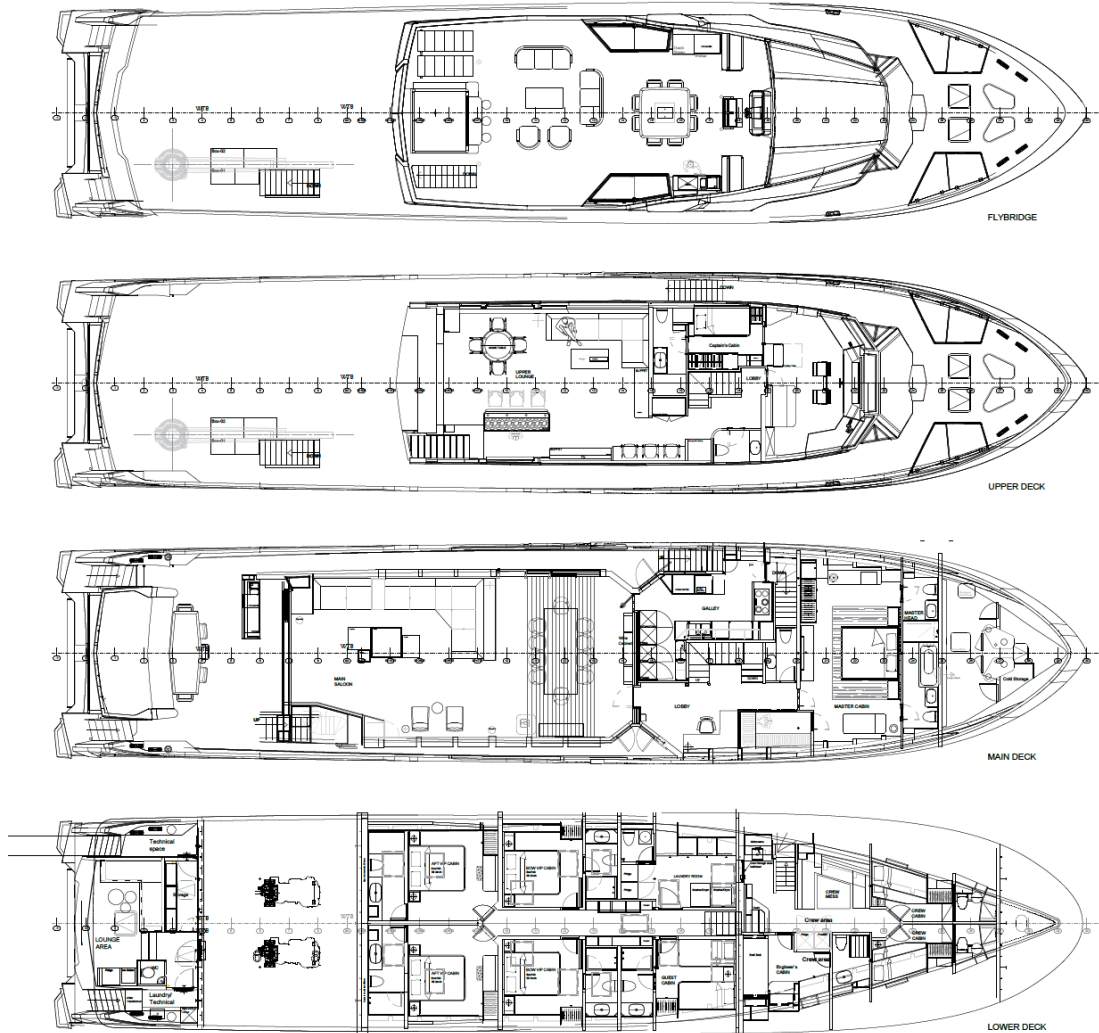
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Chapter 01 : Foreword

Upon request of Numarine Yachts, we hereby have the pleasure forwarding you our sea trial report related to measured noise levels carried out onboard Numarine 37XP08 project. The measurements are carried out on July 17th, 2023, in open water near Tuzla | Istanbul | Turkey. The weather conditions where, outside temperature 33 degrees Celsius and sea state 1.

At the time of the measurements this Yacht was completely finished.

○ **1.1: Layout:**



○ **1.2 : Project Information:**

Principal Dimensions:

- Length Overall : 37.167 meters
- Waterline length at full load : 35.164 meters
- Beam : 8.00 meters
- Depth D : abt. 3.9 meters
- Displacement full load : abt. 300 tonnes
- Displacement half load : abt. 280 tonnes
- Draft : abt. 2.71 meters
- International Gross Tonnage : under 500 GT

Engines and performance:

- Engines : MAN, D2862 LE427 900 HP
- Gearbox : ZF 2000A

Chapter 02 : Measuring equipment

Noise measurements:

In accordance with RINA noise measurements has been carried out using the following equipment:

- Manufacturer Model : RION precision real time 1/3 octave band analyzer
- Model : NA27
- Class : Class 1
- Serial number : 00121737

Calibration before and after the noise measurements did show a difference < 0.2 dB

Chapter 03 : Measured noise levels at cruising speed

- Ship speed : 9 knots
- Engine speed : Both engines 1100 rpm
- Generator set : 1 generator set running
- Stabilizers : Operational
- HVAC : Running at fan speed 1

Cabin Room	Measured level in dB(A)	Notes:
Cabin Room on Lower Deck:		
Engine Room	96.8	--
VIP cabin SB aft	40.2	--
VIP cabin PS aft	39.5	-
Guest cabin SB mid	35.1	-
Guest cabin PS mid	34.1	-
Guest cabin SB front	32.3	-
Crew Messroom PS	44.5	-
Crew cabin SB aft	38.6	-
Crew cabin SB PS front	37.5	-
Accommodation on Main deck:		
Saloon	39.0	-
Dining	40.4	-
Galley PS	37.5	-
Master Stateroom	30.1	-
Accommodation on Upper deck:		
Lounge Bar	33.7	-
Captain's cabin PS	38.1	-
Wheelhouse	44.1	-

Table 1: Measured noise levels in dB(A)

- Measurements in the center of the cabin | room at 1.6 meter above floor level
- All doors are closed, carpet in the accommodation areas was installed
- Background noise is minimum 10 dB(A) less than the measured noise levels as indicated in the below table
- Household equipment is not running as well as abstraction fans in the Galley
- Rudder angle < 2 degrees

Chapter 04 : Measured noise levels at anchor condition

- *Generator set* : 2 generator sets running (Load 24 and 25 kW)
- *Stabilizers* : Operational
- *HVAC* : Running at fan speed 1

<i>Cabin Room</i>	<i>Measured level in dB(A)</i>	<i>Notes:</i>
<i>Cabin Room on Lower Deck:</i>		
Engine Room	79.1	-
VIP cabin SB aft	28.7	-
VIP cabin PS aft	29.0	-
Guest cabin SB mid	29.4	-
Guest cabin PS mid	29.4	-
Guest cabin SB front	29.5	-
Crew Messroom PS	38.7	-
Crew cabin SB aft	29.2	-
Crew cabin SB PS front	29.3	-
<i>Accommodation on Main deck:</i>		
Saloon	33.3	-
Dining	38.7	-
Galley PS	38.3	-
Master Stateroom	26.2	-
<i>Accommodation on Upper deck:</i>		
Lounge Bar	32.2	-
Captain’s cabin PS	28.3	-
Wheelhouse	42.4	-

Table 2: Measured noise levels in dB(A) at ANCHOR:

- *Measurements in the center of the cabin | room at 1.6 meter above floor level*
- *All doors are closed, carpet in the accommodation areas was installed*
- *Background noise is minimum 10 dB(A) less than the measured noise levels as indicated in the below table*
- *Household equipment is not running as well as abstraction fans in the Galley*

Chapter 05 : Conclusion

Like the 37XP05 and 07 project, this Yacht is very quiet and free from any vibrations.

RINA Comfort Class Requirements

Table 1 : Noise limits (1/9/2012)

LOCAL	YACHT	Navigation		At berth	
		L _{min} [dB(A)]	L _{max} [dB(A)]	L _{min} [dB(A)]	L _{max} [dB(A)]
Operation compartment	All	55	65	40	50
Public spaces (closed)	All	60	75	40	50
Public spaces (open recreational areas)	Semi-planning or planning	-	-	50	60
	Displacing	65	75	50	60
Passengers' cabins	Semi-planning or planning	-	-	40	50
	Displacing	50	60	40	50

In accordance with the table on measured noise levels as shown on page 5 and 6 we may state that ALL noise levels are within the above shown RINA comfort class.