

# Travel Lift Selection Parameter Questionnaire (Detailed Version)

**Applicable for:** Marinas, Boatyards, Ship Repair Facilities, Shipbuilders, and Yacht Storage Centers

This questionnaire is designed to assist in Travel Lift selection, project planning, and technical proposal development. It can be used as a customer requirement survey form or engineering design reference.

## 1. Vessel Information

| Selection Item               | Parameter                                                                 | Description                                                             | Impact on Equipment Selection         |
|------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------|
| Vessel Type                  | Monohull /<br>Catamaran /<br>Trimaran /<br>Workboat /<br>Passenger Vessel | Different vessel types have different load distribution characteristics | Determines sling arrangement          |
| Annual Vessel Volume         | ___ vessels/year                                                          | Total annual launch & retrieval operations                              | Determines equipment utilization rate |
| Maximum Length Overall (LOA) | ___ m                                                                     | Overall vessel length                                                   | Affects span design                   |
| Maximum Beam                 | ___ m                                                                     | Maximum vessel width                                                    | Determines clear span                 |
| Maximum Draft                | ___ m                                                                     | Distance from waterline to keel                                         | Determines lifting height             |
| Maximum Vessel Weight        | ___ t                                                                     | Fully loaded displacement                                               | Determines rated lifting capacity     |
| Hull Material                | FRP / Aluminum /<br>Steel / Composite                                     | Different materials have different load-bearing characteristics         | Influences lifting point design       |
| Vessel Value                 | Luxury Yacht /<br>Standard Vessel                                         | Different safety requirements                                           | Influences safety configuration level |

## 2. Marina Operations

| Selection Item            | Parameter                                              | Description                               | Impact on Equipment Selection  |
|---------------------------|--------------------------------------------------------|-------------------------------------------|--------------------------------|
| Daily Operating Frequency | ___ cycles/day                                         | Number of launch and retrieval operations | Determines duty classification |
| Peak Operating Demand     | ___ cycles/hour                                        | Peak workload requirement                 | Determines operating speed     |
| Working Schedule          | Single Shift / Double Shift / 24-Hour Operation        | Equipment utilization intensity           | Affects power system selection |
| Customer Type             | Private Yacht Owners / Yacht Clubs / Commercial Fleets | Operating model                           | Determines equipment grade     |
| Future Expansion Plan     | Yes / No                                               | Future vessel size upgrades               | Requires capacity reserve      |

## 3. Site Conditions

| Selection Item            | Parameter                            | Description                         | Impact on Equipment Selection                   |
|---------------------------|--------------------------------------|-------------------------------------|-------------------------------------------------|
| Water Depth               | ___ m                                | Working water depth                 | Influences design configuration                 |
| Dock Length               | ___ m                                | Available waterfront area           | Affects equipment layout                        |
| Yard Width                | ___ m                                | Available land-side operating area  | Influences steering design                      |
| Storage Area              | ___ m <sup>2</sup>                   | Dry storage area                    | Determines transportation routes                |
| Ground Surface Type       | Concrete / Asphalt / Steel Structure | Ground load-bearing characteristics | Influences wheel load design                    |
| Ground Bearing Capacity   | ___ t/m <sup>2</sup>                 | Civil engineering parameter         | Determines wheel quantity and load distribution |
| Turning Radius Limitation | ___ m                                | Site restriction                    | Determines steering mode                        |

## 4. Main Travel Lift Parameters

| Selection Item         | Parameter                                                 | Description                                 | Impact on Equipment Selection               |
|------------------------|-----------------------------------------------------------|---------------------------------------------|---------------------------------------------|
| Rated Lifting Capacity | 30T – 1200T                                               | Core specification                          | Selected according to maximum vessel weight |
| Safety Factor          | 1.1 – 1.3                                                 | Recommended load reserve                    | Ensures safe operation                      |
| Clear Span             | 4 m – 30 m+                                               | Distance between inner sides of main frames | Determined by vessel beam                   |
| Lifting Height         | 4 m – 25 m                                                | Sling lifting travel                        | Determined by draft requirements            |
| Lifting Speed          | ___ m/min                                                 | Operating efficiency indicator              | Influences productivity                     |
| Travel Speed           | ___ m/min                                                 | Transportation efficiency                   | Affects marina turnover rate                |
| Steering Mode          | Front-Wheel Steering / Crab Steering / All-Wheel Steering | Maneuverability                             | Important for confined spaces               |

## 5. Power System Options

| Selection Item | Option   | Description                                                             | Selection Item |
|----------------|----------|-------------------------------------------------------------------------|----------------|
| Diesel Drive   | Yes / No | Traditional and reliable solution, suitable for heavy-duty applications | Diesel Drive   |
| Electric Drive | Yes / No | Low noise and environmentally friendly,                                 | Electric Drive |

|                        |          |                                                            |                        |
|------------------------|----------|------------------------------------------------------------|------------------------|
|                        |          | increasingly popular in marinas                            |                        |
| Hybrid Drive           | Yes / No | Energy-saving solution for premium projects                | Hybrid Drive           |
| Battery-Electric Drive | Yes / No | Zero-emission solution for sustainable marina developments | Battery-Electric Drive |

## 6. Safety Configuration Options

| Safety Feature                 | Standard / Optional | Function                                         | Safety Feature                 |
|--------------------------------|---------------------|--------------------------------------------------|--------------------------------|
| Load Monitoring System         | Standard / Optional | Real-time load monitoring                        | Load Monitoring System         |
| Anti-Tipping Protection System | Standard            | Prevents overturning accidents                   | Anti-Tipping Protection System |
| Synchronous Lifting System     | Standard            | Ensures even lifting and protects hull structure | Synchronous Lifting System     |
| Wind Speed Monitoring System   | Optional            | Adverse weather warning                          | Wind Speed Monitoring System   |
| Anti-Collision System          | Optional            | Intelligent obstacle detection                   | Anti-Collision System          |
| Camera Monitoring System       | Optional            | Improves operator visibility                     | Camera Monitoring System       |
| Remote Diagnostic System       | Optional            | Reduces downtime and maintenance costs           | Remote Diagnostic System       |

## 7. Environmental Conditions

| Selection Item         | Parameter           | Description                                  | Selection Item         |
|------------------------|---------------------|----------------------------------------------|------------------------|
| Project Country        | _____               | Compliance with local regulations            | Project Country        |
| Ambient Temperature    | _____ °C            | Operating temperature range                  | Ambient Temperature    |
| Wind Speed Requirement | _____ m/s           | Coastal environmental consideration          | Wind Speed Requirement |
| Corrosion Level        | High / Medium / Low | Determines anti-corrosion specification      | Corrosion Level        |
| Seismic Requirement    | Yes / No            | Structural reinforcement for seismic regions | Seismic Requirement    |

## 8. Certification Requirements

| Certification     | Required | Description                               | Certification     |
|-------------------|----------|-------------------------------------------|-------------------|
| CE Certification  | Yes / No | Mandatory for European market             | CE Certification  |
| ISO Certification | Yes / No | International quality management standard | ISO Certification |
| ABS Certification | Yes / No | American Bureau of Shipping requirements  | ABS Certification |
| DNV Certification | Yes / No | Offshore and high-end marine projects     | DNV Certification |
| CCS Certification | Yes / No | China Classification Society              | CCS Certification |

|  |  |              |  |
|--|--|--------------|--|
|  |  | requirements |  |
|--|--|--------------|--|

## 9. Budget & Investment Planning

| Selection Item          | Parameter  | Description                     | Selection Item          |
|-------------------------|------------|---------------------------------|-------------------------|
| Budget Range            | USD _____  | Project investment budget       | Budget Range            |
| Required Payback Period | ____ Years | ROI evaluation                  | Required Payback Period |
| Financing Requirement   | Yes / No   | Procurement and financing model | Financing Requirement   |

## 10. After-Sales Service Requirements

| Service Item             | Required | Description                            | Service Item             |
|--------------------------|----------|----------------------------------------|--------------------------|
| Installation Supervision | Yes / No | On-site installation guidance          | Installation Supervision |
| Operator Training        | Yes / No | Safe operation training                | Operator Training        |
| Spare Parts Support      | Yes / No | Maintenance and service support        | Spare Parts Support      |
| Remote Technical Support | Yes / No | Reduced maintenance costs and downtime | Remote Technical Support |

## HSCRANE Recommended Travel Lift Capacity Guide

| Maximum Vessel Weight | Recommended Travel Lift Capacity | Maximum Vessel Weight | Recommended Travel Lift Capacity |
|-----------------------|----------------------------------|-----------------------|----------------------------------|
| ≤ 20 t                | 25T – 30T                        | ≤ 20 t                | 25T – 30T                        |

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| 20 – 40 t   | 50T         | 20 – 40 t   | 50T         |
| 40 – 80 t   | 80T – 100T  | 40 – 80 t   | 80T – 100T  |
| 80 – 120 t  | 150T        | 80 – 120 t  | 150T        |
| 120 – 200 t | 200T – 250T | 120 – 200 t | 200T – 250T |
| 200 – 300 t | 300T        | 200 – 300 t | 300T        |
| 300 – 500 t | 500T        | 300 – 500 t | 500T        |

### HSCRANE Recommended Selection Formula

**Travel Lift Rated Capacity  $\geq$  Maximum Vessel Weight  $\times$  1.2**

*Example:*

Maximum Vessel Weight: 80 t

Recommended Travel Lift Capacity: 100 t

A 20% safety margin is recommended to accommodate future vessel upgrades and ensure long-term safe operation.

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Project Name: \_\_\_\_\_

Company: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_