

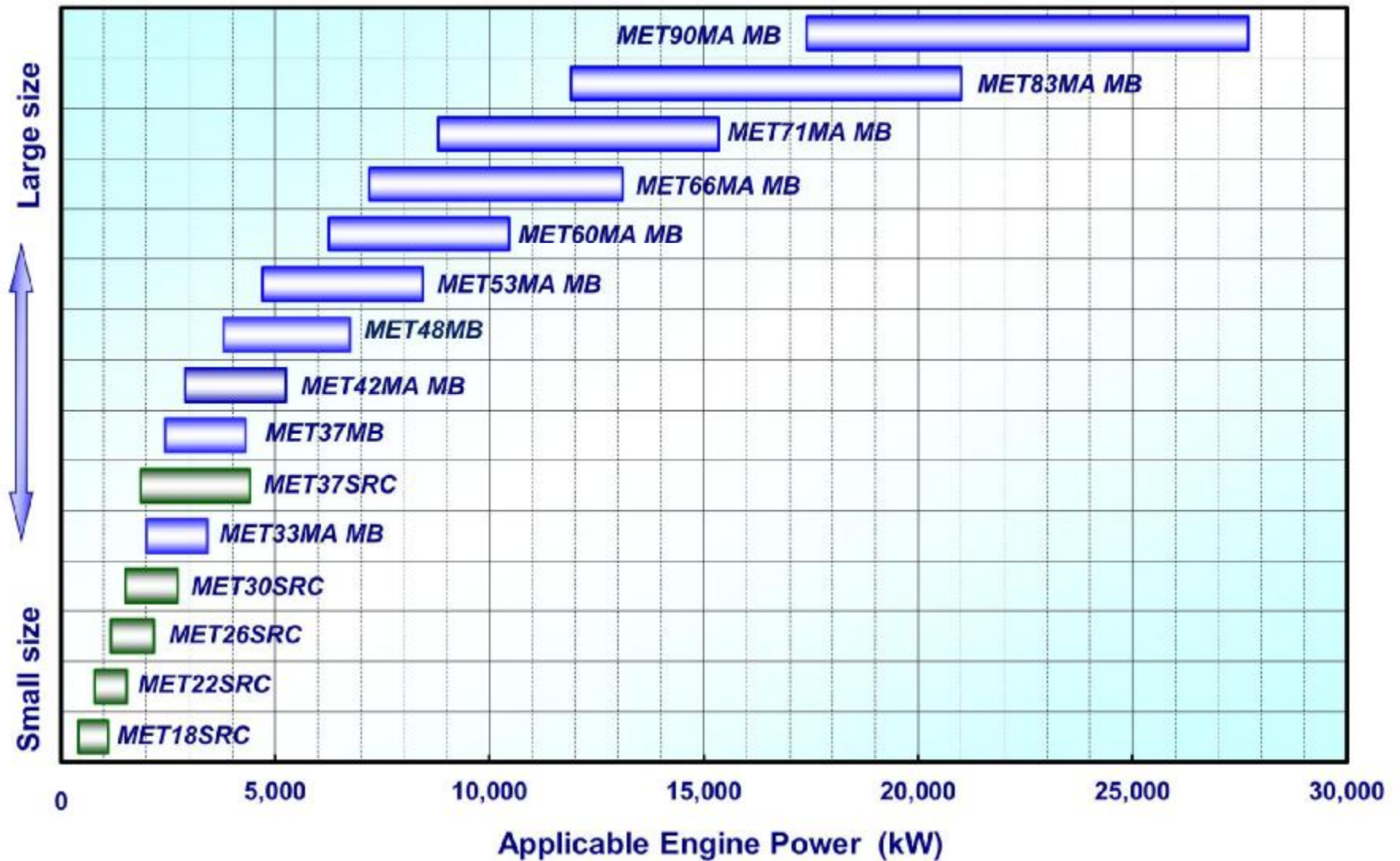
After service of MET turbocharger

2018
Turbocharger Service Section,
Turbocharger Division

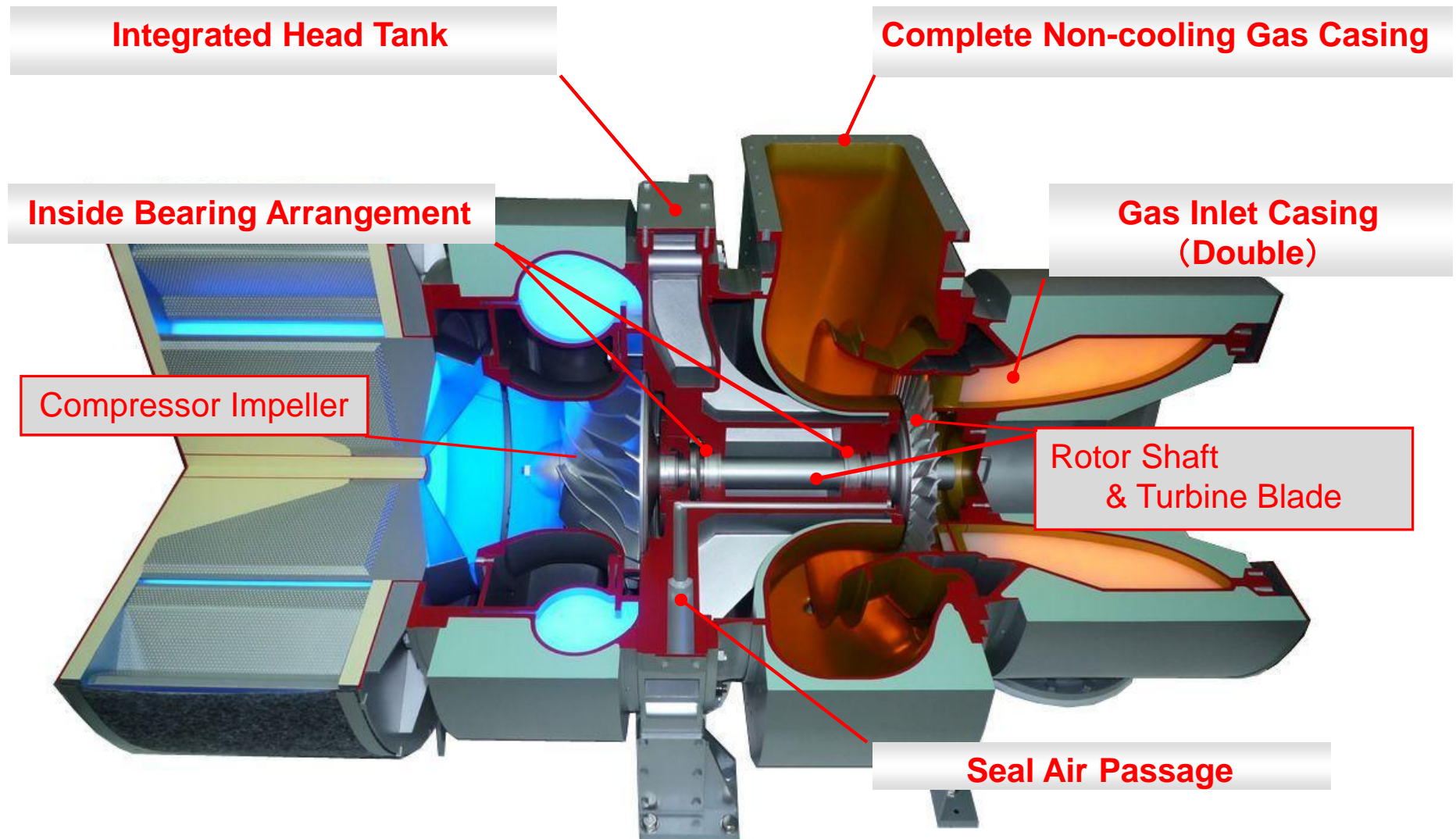
Overhaul MET turbocharger

MET Turbocharger Line-up & Basic Construction

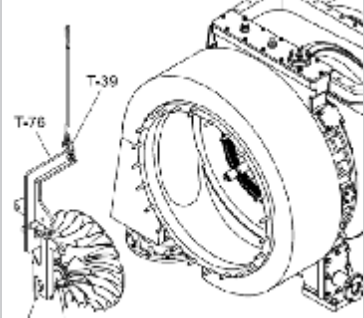
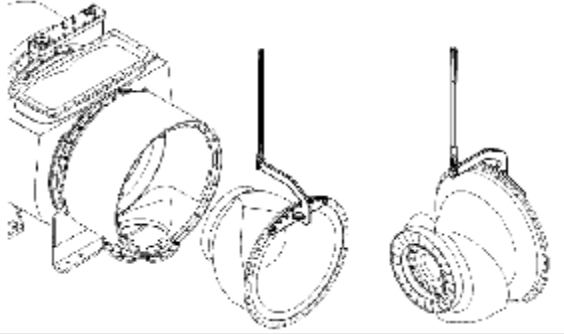
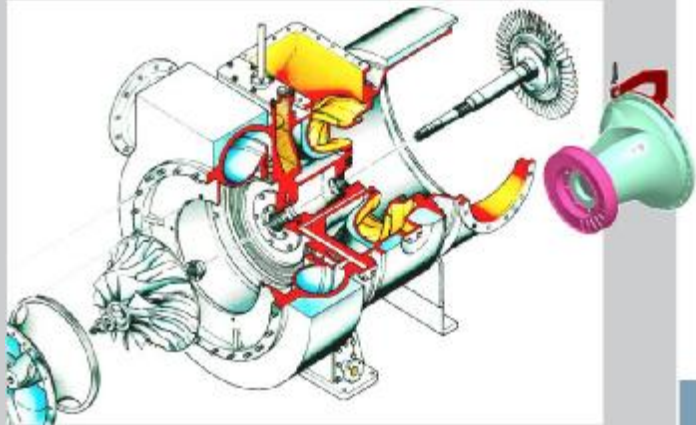
10 Sizes of Axial Turbine Turbochargers and 5 Sizes of Radial Turbine Turbocharger



MET Turbocharger Line-up & Basic Construction

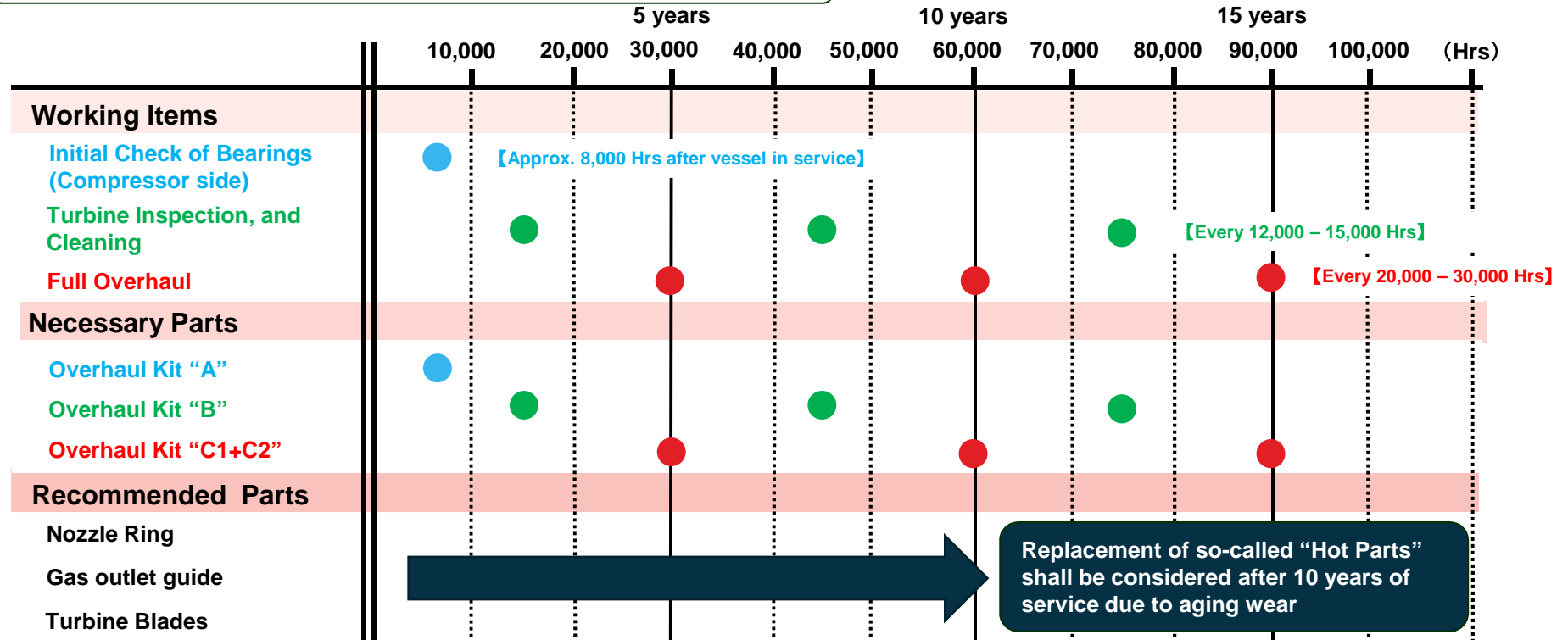


Kind of Maintenance

Kind of Maintenance	Work scope	
Initial Check of Bearings (Compressor side)	<ul style="list-style-type: none">• Remove compressor side parts (Impeller, support, etc.)• Check of thrust bearings condition.	
Turbine Inspection, and Cleaning	<ul style="list-style-type: none">• Remove turbine side parts. (gas inlet casing/nozzle ring)	
Full Overhaul	<ul style="list-style-type: none">• Pulling out of rotor shaft is required.• Bearings are also removed & inspected.	

MET Turbocharger – Maintenance Guideline

Sample, relevant for MET71, -66 and -60 types



Replacement of so-called "Hot Parts" shall be considered after 10 years of service due to aging wear

Required Working Time for one T/C : Engineers x Hrs

Initial Check of Bearings (Compressor side) : 2 x 5Hrs




Turbine Inspection, and Cleaning : 2 x 3Hrs

Full Overhaul : 2 x 10Hrs

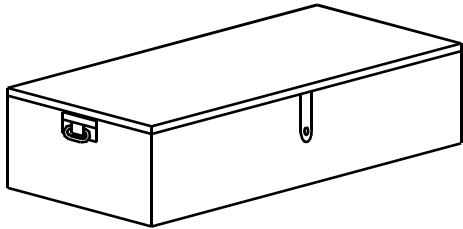
Initial Check of Bearings (Compressor side) is recommended to check no damage resulting from foreign particles in oil pipes during new-building assembling work has happened.

Stock of Overhaul Kit

Recommendation for spare parts as onboard ship's stock

Overhaul Kit	Relevant service job	Photo
<p>Kit "A" (consumable parts)</p>	<p>Initial check of bearings (Compressor side)</p>	
<p>Kit "B" (consumable parts)</p>	<p>Turbine Inspection, and Cleaning</p>	
<p>Kit "C1 + C2" (C1:consumable parts C2:condition basis parts)</p>	<p>Full Overhaul</p>	

To be stocked as spare parts on-board as kit



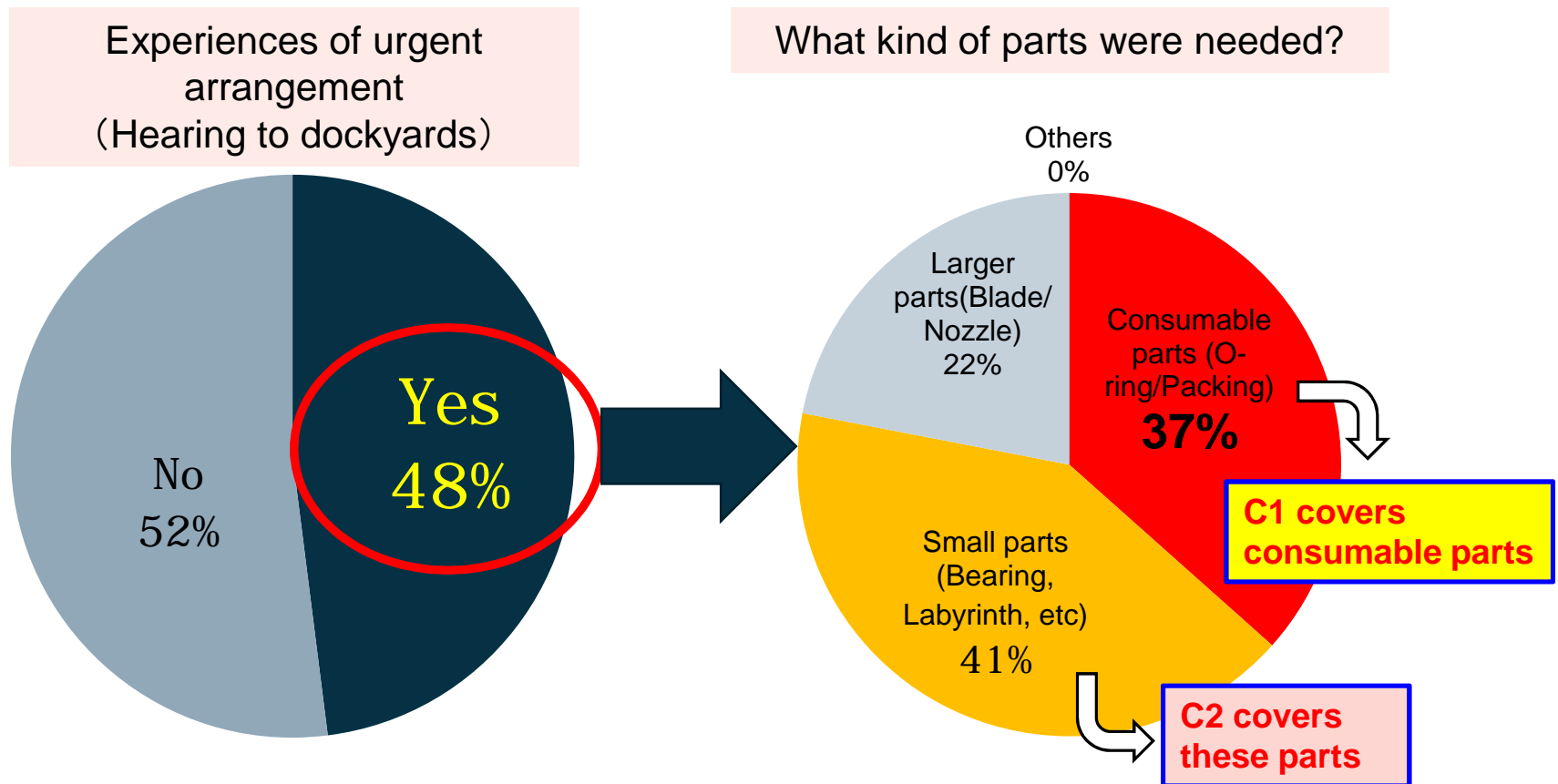
Only necessary to order the actual consumed parts after service jobs

<p>Advantages</p>	<ul style="list-style-type: none"> ∅ No urgent arrangement for required spare parts ∅ No urgent arrangement in case of trouble ∅ No worry about lead time
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Stock of Overhaul Kit

【Questionnaires Result to Dockyard(Repair)】

- Experiences of urgent arrangement of necessary parts : About 40%
- Consumable parts such as O-rings : 40%



Questionnaires result to repair dockyard @ June 2017