



**BUSINESS PLAN · INDIA**

# **Marine-Equipment and Spares Supply**

*stock by consequence, not by turns*

**SHIPPING, PORTS AND MARINE SERVICES**

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This document is confidential and prepared for planning purposes. All financial figures are illustrative model assumptions for an Indian MSME context and must be validated against live quotes, local rates and professional advice before any investment or borrowing decision.

## 1. Executive Summary

This plan sets out a **Marine-Equipment and Spares Supply** business — main engine, auxiliary and turbocharger spares, deck mooring and safety equipment, electrical automation and navigation, consumables, and reconditioned exchange units with recorded provenance. By Year 3 it ships **45,140 line items** from **14,800 SKUs** to **340 vessels** and bills **₹38.00 crore**, stocking **by consequence rather than by turns**.

This plan is the fifth in vertical 58 and **inherits the ten maritime anchor rules (a)-(j)** set out in §17 of the ship-repair yard plan.

| Item                                                               | Detail                                                                                                                                                                                                                                        | Year 3                        |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| <b>What is sold</b>                                                | Main engine, auxiliary and turbocharger spares; deck, mooring, safety and life-saving equipment; electrical, automation and navigation; consumables, filters, seals and lubricants; reconditioned and exchange units with recorded provenance | <b>₹38.00cr</b>               |
| SKUs / line items / vessels                                        | 14,800 SKUs held, 45,140 line items shipped on 9,200 orders, 380 exchange units                                                                                                                                                               | 14,800;<br>45,140; 340        |
| PAT / net margin                                                   | A distribution business: ₹27.68cr of the ₹38.00cr leaves as goods purchased                                                                                                                                                                   | <b>₹1.65cr /<br/>4.3%</b>     |
| ROCE on ₹9.00cr                                                    | Inventory margin, warehouse, reconditioning workshop and the provenance and traceability systems                                                                                                                                              | <b>29.6%</b>                  |
| <b>Slow-moving critical stock: SKUs / share of inventory value</b> | <b>3,640 SKUs turning less than once in three years, held deliberately</b>                                                                                                                                                                    | <b>24.6% /<br/>49.6%</b>      |
| <b>Carrying cost of that stock / off-hire it prevented</b>         | <b>68 critical issues, 4.6 days each, at ₹9.40 lakh a day</b>                                                                                                                                                                                 | <b>₹0.92cr /<br/>₹29.40cr</b> |

☐ **THE PART THAT SAVES THE MOST MONEY IS THE PART NOBODY CAN AFFORD TO STOCK. A spare's value in use is the off-hire it prevents, and its value in inventory is negative — and the two are inversely related, because the parts that prevent the most expensive stoppages are precisely the ones that fail rarely. HIGH CONSEQUENCE MEANS LOW FREQUENCY, LOW FREQUENCY MEANS DEAD STOCK, AND DEAD STOCK IS THE ONE THING EVERY DISTRIBUTOR IS MEASURED ON NOT HAVING.**

**So the merchant's inventory measure is the exact inverse of the customer's need. Our 3,640 slowest SKUs are 24.6% of the catalogue and 49.6% of the inventory value, they cost ₹0.92 crore a year to carry, and in Year 3 they prevented ₹29.40 crore of off-hire — thirty-two rupees saved for every rupee carried. NOT ONE RUPEE OF THAT ₹29.40 CRORE APPEARS ANYWHERE IN OUR ACCOUNTS, AND THE ₹0.92 CRORE APPEARS IN FULL.**

## 2. Business Description, Vision & Legal Structure

A private limited distributor and reconditioner of marine equipment and spares, holding stock against criticality rather than turnover, with its own goods-inward provenance verification and a reconditioning workshop with recorded histories.

| Element                 | Position                                                                                                                                                                                                                                                       |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Legal form              | Private limited company; OEM and authorised-distributor agreements; importer registrations and customs bonded storage; type-approval documentation for life-saving and fire-fighting equipment; approved service-station status for safety equipment servicing |
| Where the money is made | Consumables at 17% are the volume and prevent nothing expensive; reconditioned exchange units at 34% and deck and safety equipment at 26% carry the margin; engine spares at 22% carry the consequence                                                         |
| What is different       | Stock is held by consequence of absence rather than by turns, with an availability commitment published per criticality class and an off-hire-avoided ledger showing what the dead stock actually did                                                          |
| Vision                  | A supplier whose slowest-moving shelf is the reason customers keep the account                                                                                                                                                                                 |

| Why this shape                                            | Reasoning                                                                                                                                                                                                            |
|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stock by consequence, not by turns</b>                 | <b>Inventory turns measure how little capital is tied up; the customer needs to know whether the part is on the shelf at two in the morning. Those are different questions and only one of them is ever reported</b> |
| <b>Provenance verified at goods inward, on every item</b> | <b>This is the control on the first remedy: stocking deep and obsolete means sourcing from wherever the part can still be found, which is exactly where the counterfeits are</b>                                     |
| Reconditioning in-house with recorded history             | The honest alternative to a grey-market new part is a genuine used one with a documented overhaul, and it is the best margin in the book at 34%                                                                      |
| Consignment stock aboard and at yards                     | Under rule (c) a ship earns only at sea; the part is worth most when it is already where the failure will happen, and consignment is the only way a vessel holds stock it has not paid for                           |

### 3. Promoter & Ownership

| Item            | Position                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Promoter        | Marine engineer, eight years sailing as second and chief, then twelve ashore in spares distribution; spent the sea years unable to get parts and the shore years being told by his own management to delist them                                                                                                                                                                                                    |
| Promoter equity | <b>₹3.15cr</b> of the ₹9.00cr project cost (35%), unsecured and not withdrawable during the loan term                                                                                                                                                                                                                                                                                                               |
| Ownership       | Promoter and family 60%; technical and procurement leadership under ESOP 20%; a distribution-sector investor 20%                                                                                                                                                                                                                                                                                                    |
| Governance      | <b>No SKU is delisted on turnover alone. Delisting requires a criticality assessment showing that its absence cannot cause an off-hire, and the assessment is recorded. No item is received into stock without a verifiable chain to an OEM or authorised channel, serialised and photographed at goods inward, and no director may authorise an exception. Every invoice states the origin class of every line</b> |

The first sentence inverts the one instruction every distributor's board actually gives. **3,640 SKUs — 24.6% of the catalogue — turn less than once in three years and sit on ₹4.86 crore of our ₹9.80 crore of inventory. A FINANCE DIRECTOR LOOKING AT THAT LINE WOULD BE RIGHT, ON EVERY MEASURE HE IS GIVEN, TO ORDER IT CLEARED — AND THE MEASURE HE IS GIVEN HAS NO COLUMN FOR THE ₹29.40 CRORE OF OFF-HIRE IT PREVENTED.**

## 4. Market Analysis — India

| Segment                                                          | What drives it                                                                                                          | Position taken               |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------|
| <b>Main engine, auxiliary and turbocharger spares</b>            | Planned maintenance under rule (b) plus unplanned failure; the largest segment and the one where absence costs the most | 12,800 line items at ₹11,875 |
| Deck, mooring, safety and life-saving equipment                  | Survey-driven replacement of LSA and FFA items on fixed cycles, plus mooring and deck wear                              | 8,800 line items at ₹9,500   |
| Electrical, automation and navigation                            | Obsolescence of control systems on ageing tonnage; the segment where a part may simply no longer be made                | 3,400 line items at ₹19,000  |
| <b>Consumables, filters, seals and lubricants</b>                | Continuous demand, thin margin, everybody stocks them — and their absence stops nothing                                 | 19,760 line items at ₹2,500  |
| <b>Reconditioned and exchange units with recorded provenance</b> | The honest alternative when a new OEM part is unavailable or two months away; 34% margin                                | 380 units at ₹80,000         |

### What the slow shelf costs and what it prevents

| Measure                                                               | Year 3                         |
|-----------------------------------------------------------------------|--------------------------------|
| SKUs turning less than once in three years                            | <b>3,640 of 14,800 — 24.6%</b> |
| Their share of ₹9.80 crore of inventory value                         | <b>₹4.86cr — 49.6%</b>         |
| Carrying cost at 19% (capital, space, obsolescence)                   | <b>₹0.92cr</b>                 |
| <b>Off-hire prevented: 68 critical issues × 4.6 days × ₹9.40 lakh</b> | <b>₹29.40cr</b>                |
| <b>Our own gross profit on those 68 issues</b>                        | <b>₹0.23cr</b>                 |

**Indian marine spares supply has grown with the coastal and offshore fleet, with better import logistics, more authorised distributorships and genuine competition on price and delivery. IT REMAINS A TRADE IN WHICH EVERY PARTICIPANT IS MEASURED ON INVENTORY TURNS AND EVERY CUSTOMER IS EXPOSED TO WHAT IS NOT ON THE SHELF.**

## 5. Competition & Position

| Competitor type                       | What they do well                                                                | Where the gap is                                                                                                       |
|---------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| OEM service networks                  | Genuine parts, full documentation, real technical depth and warranty behind them | Priced accordingly, and stock is held centrally or abroad — the part is authentic and three weeks away                 |
| Large spares distributors             | Wide catalogue, strong buying, fast on anything that moves                       | Ruthless on turns: the slow SKU is delisted every year, and the delisting is reported as a working-capital improvement |
| Ship-chandling and general suppliers  | Available at every port, quick, and will source anything from anywhere           | Anything from anywhere is the problem; provenance is a certificate in an envelope and nobody checks it                 |
| Direct online and grey-market sellers | Cheapest by a distance, and often genuinely have the obsolete part               | No chain of custody at all, and the buyer ashore cannot tell — nor can the engineer who fits it                        |

|                      |                                                                                                           |                                                                              |
|----------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>This supplier</b> | Criticality-based stocking, published availability and off-hire ledger, verified provenance on every item | <b>Dearer per line, and carrying a shelf a competitor would have cleared</b> |
|----------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

**The competitive difficulty is that our advantage is only ever visible in the negative. A purchasing office ashore comparing quotes sees our price against three others and cannot see that we hold the governor actuator and they do not. OUR VALUE IS A DELIVERY THAT HAPPENS INSTEAD OF A WAIT THAT DOES NOT — AND THE WAIT THAT DID NOT HAPPEN IS NOT AN EVENT ANYBODY RECORDS, PRICES OR THANKS US FOR.**

## 6. The Part That Saves the Most Money Is the Part Nobody Can Afford to Stock

This is the finding, and it concerns an inverse relationship between what a part is worth and what it costs to have it.

| Part type                                                             | Turns                    | Consequence of absence |
|-----------------------------------------------------------------------|--------------------------|------------------------|
| Filters, seals, gaskets, lubricants                                   | <b>High</b>              | <b>Nil</b>             |
| Routine wearing parts                                                 | Moderate                 | A delay                |
| <b>Governor actuator, turbocharger cartridge, obsolete controller</b> | <b>Once in 3-5 years</b> | <b>Off-hire</b>        |
| What the distributor is measured on                                   | <b>Turns</b>             | —                      |
| <b>What the customer needs</b>                                        | —                        | <b>Availability</b>    |

**A marine spare has two values that move in opposite directions. Its value in use is the off-hire it prevents; its value in inventory is negative, because it consumes capital, space and shelf life. And the two are inversely related as a matter of engineering rather than accident: the components whose failure stops a ship are the ones designed not to fail often. HIGH CONSEQUENCE MEANS LOW FREQUENCY, LOW FREQUENCY MEANS DEAD STOCK, AND DEAD STOCK IS PRECISELY WHAT EVERY DISTRIBUTOR IN THE WORLD IS MEASURED ON NOT HAVING.**

**Our own numbers state it exactly. 3,640 SKUs — 24.6% of the catalogue — turn less than once in three years, account for only 8.4% of line items shipped, and sit on ₹4.86 crore of the ₹9.80 crore of inventory: 49.6% of the money for 8.4% of the movement. They cost ₹0.92 crore a year to carry. In Year 3 they went out on 214 issues, of which 68 were genuinely off-hire-critical: 4.6 days avoided each, at an average off-hire of ₹9.40 lakh a day — ₹29.40 CRORE OF OFF-HIRE PREVENTED BY ₹0.92 CRORE OF CARRYING COST, A RATIO OF THIRTY-TWO TO ONE.**

**And the decision to hold it is made by somebody who bears none of that and is rewarded for the opposite. The distributor's board sees turns, working capital and obsolescence provisions; the owner's off-hire never appears on our profit and loss at all. Our gross profit across all 68 critical issues was ₹0.23 crore — SO ₹0.23 CRORE OF OUR MARGIN STOOD BETWEEN A CUSTOMER AND ₹29.40 CRORE OF LOST EARNINGS, AND NO RATIONAL INVENTORY POLICY WOULD EVER JUSTIFY IT. Nobody is behaving badly: a finance director ordering that shelf cleared is right on every measure he has been given.**

So the stocking rule is inverted and the result is published. No SKU is delisted on turnover alone — delisting requires a recorded criticality assessment showing that its absence cannot cause an off-hire — and an availability commitment is published per criticality class. ₹0.92 crore of carrying cost is accepted as a deliberate expense rather than a failure, ₹0.31 crore of consignment stock is placed aboard vessels and at yards and paid for only when consumed, and an off-hire-avoided ledger is published so the dead shelf has a number beside it. **GENERAL RULE: WHERE THE VALUE OF A THING IS THE COST IT PREVENTS, THE MERCHANT'S INVENTORY MEASURE IS THE INVERSE OF THE CUSTOMER'S NEED — SO STOCK BY CONSEQUENCE, NOT BY TURNS.**

## 7. The Counterfeit and the Genuine Part Carry the Same Certificate

The second thread is the control on the hazard the first one's remedy creates, and it concerns paperwork that is easier to make than the part.

| Of 240 samples bought anonymously on the open market                     | Result              |
|--------------------------------------------------------------------------|---------------------|
| Failed provenance verification                                           | 37 — 15.4%          |
| <b>Of those, carried a certificate of conformity that looked genuine</b> | <b>31 — 83.8%</b>   |
| Detectable by the buyer ashore                                           | None                |
| Detectable by the engineer fitting it                                    | Rarely              |
| <b>Detectable after it fails inside a machine</b>                        | <b>Almost never</b> |

The marine spares chain runs on paperwork that nobody can authenticate at the point of fitting. A certificate of conformity, a test report and a packing list are printed documents, and printing is the cheapest thing in the transaction. Of 240 items we bought anonymously on the open market, 37 failed provenance verification — and 31 OF THOSE 37 CARRIED CERTIFICATION THAT LOOKED ENTIRELY GENUINE. THE PAPERWORK IS NOT THE WEAK POINT IN THE COUNTERFEIT. THE PAPERWORK IS THE PRODUCT.

And the failure mode is designed to be invisible. The part goes inside a machine — a bearing, a valve seat, an injector, a sensor — so when it fails, the machine fails. The investigation records an engine failure, the insurer pays or does not, the part is scrapped with the component, and nobody ever asks where it came from. A COUNTERFEIT MARINE SPARE IS NEVER BLAMED, BECAUSE BY THE TIME IT MATTERS IT IS NO LONGER RECOGNISABLE AS A SEPARATE THING.

Which is exactly the hazard the §6 remedy creates, and why the two threads are one arrangement. Holding deep, slow-moving and obsolete stock means sourcing parts that OEMs no longer supply and authorised channels no longer carry — and the place where an obsolete controller for a 1998 automation system can still be found is the grey market. THE DEEPER AND OLDER THE SHELF, THE MORE OF IT MUST COME FROM CHANNELS THAT CANNOT BE VERIFIED — SO THE VERY POLICY THAT PREVENTS OFF-HIRE IS THE POLICY THAT WOULD FILL OUR WAREHOUSE WITH FAKES.

So provenance verification arrives with the inventory rather than after it. Every item is traced to an OEM or authorised channel at goods inward, serialised and photographed — 45,140 line items at ₹128 each, ₹0.58 crore a year — and refused outright where the chain breaks: 1,240 line items and ₹2.34 crore of purchase

value turned away, costing ₹3.05 crore of sales and ₹0.72 crore of gross profit. Where no verifiable new part exists, we recondition a genuine used one with a recorded history rather than buy an unverifiable new one, and every invoice states the origin class of every line: OEM 61%, OEM-authorised 27%, reconditioned with recorded history 8%, other and disclosed 4%.

## 8. Operations Plan (assess, source, verify, hold, place)

- **Assess.** Every SKU carries a recorded criticality class based on consequence of absence — off-hire, delay or none — reviewed annually against the vessels actually served.
- **Source.** OEM and authorised channels first; where the part is obsolete, a genuine used unit reconditioned in-house with a recorded history rather than an unverifiable new one.
- **Verify.** Provenance traced, serialised and photographed at goods inward on all 45,140 line items, and refused where the chain breaks.
- **Hold.** Stock levels set by criticality rather than turns, with the carrying cost of the slow shelf budgeted as a deliberate expense.
- **Place.** Consignment stock aboard the highest-consequence vessels and at partner yards, paid for only when consumed.

| Step                                        | What is recorded                         | Why                          |
|---------------------------------------------|------------------------------------------|------------------------------|
| Criticality assessment before any delisting | Consequence of absence, recorded         | 14,800 SKUs; 3,640 slow held |
| Off-hire-avoided ledger                     | Issues, days avoided, off-hire rate      | 68 critical; ₹29.40cr        |
| Provenance at goods inward                  | Chain, serial number, photograph         | 45,140 items; ₹128 each      |
| Purchases refused on a broken chain         | Line items and value turned away         | 1,240; ₹2.34cr               |
| Origin class stated on every invoice        | OEM / authorised / reconditioned / other | 61 / 27 / 8 / 4%             |

The operational hinge is a governor actuator for a 1996 auxiliary engine: ₹1.42 lakh, one unit on our shelf for four years, carried at about ₹27,000 a year of capital and space. A supply vessel loses the engine on a Saturday; the OEM quotes eleven days ex-works Europe and the nearest alternative stock is five days away; ours goes out that afternoon. The vessel is off-hire at ₹9.40 lakh a day, so the shelf that a competent finance director would have cleared four years ago just saved its owner five days — about ₹47 lakh — and earned us ₹31,000 of gross profit. THE ONLY REASON WE HAD IT IS THAT WE HAD DECIDED, IN ADVANCE AND IN WRITING, NOT TO ASK WHAT ITS TURNS WERE.

## 9. Import, Type-Approval and Product Framework (India)

| Area                            | Requirement                                                                                                                                                                                                                            |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type approval and certification | Life-saving and fire-fighting equipment carries type approval and requires certified servicing at defined intervals under rule (b); the certificate travels with the item, which is exactly what makes it forgeable — the whole of \$7 |
| Import and customs              | Under rule (h) spares are import-priced and long-lead: customs classification and valuation, duty and IGST, bonded storage, and re-import of exchange cores; a rupee move is a cost event on a 72.8% bought-in book                    |

|                                   |                                                                                                                                                                                                             |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Class and survey interface</b> | <b>Under rule (a) class, flag and port state each have their own view of what must be replaced and when; a part acceptable to one may not satisfy another, and the supplier is not a party to any of it</b> |
| Reconditioning and exchange       | Recorded overhaul history, test certification and traceability of cores; approved service-station status where the equipment class requires it                                                              |
| Product liability                 | Under rule (d) cover is priced on our own record, and a counterfeit that passes through us is our exposure whatever the certificate said                                                                    |
| Commercial                        | Distributorship and OEM agreements; GST on goods and on reconditioning services at differing treatment; Legal Metrology on packaged items; Companies Act, EPF, ESI and TDS                                  |

| What the framework reaches                       | What it does not                                                    |
|--------------------------------------------------|---------------------------------------------------------------------|
| That certified equipment meets its type approval | <b>Whether the certificate belongs to the item in the box</b>       |
| Customs valuation and duty on the import         | <b>Whether the shelf holds what a failure will need</b>             |
| Servicing intervals on safety equipment          | <b>The part that fails inside a machine and is scrapped with it</b> |

**The framework does its job: it type-approves the equipment, sets the servicing intervals and taxes the import. NEITHER PROBLEM IN THIS PLAN IS A REGULATORY FAILURE. The first is a commercial measurement problem — no regulator can require a private company to carry dead stock, and none should; the second is that certification is a document travelling separately from the thing it describes, and any system built on transferable paper can be defeated by better paper. In both, the rule is sound and the incentive underneath it points the other way.**

## 10. Organisation & Manpower Plan

| Function                                       | Yr 1      | Yr 3      | Note                                              |
|------------------------------------------------|-----------|-----------|---------------------------------------------------|
| <b>Warehouse, goods inward and despatch</b>    | 12        | <b>28</b> | <b>Derived: 49,770 man-hours ÷ 1,801 = 27.6</b>   |
| Technical sales and part identification        | 7         | 16        | 9,200 orders against machinery lists              |
| Reconditioning workshop                        | 4         | 9         | 380 exchange units at 34% margin                  |
| Finance, credit and administration             | 4         | 9         | ₹9.80cr of stock to fund                          |
| <b>Procurement and provenance verification</b> | 4         | <b>8</b>  | <b>1,240 line items refused this year</b>         |
| <b>Stock control and criticality analysis</b>  | 2         | <b>5</b>  | <b>No delisting without a recorded assessment</b> |
| IT and systems                                 | 2         | 3         | Catalogue, serialisation and traceability         |
| Managing director                              | 1         | 1         | Cannot authorise a provenance exception           |
| <b>Total</b>                                   | <b>36</b> | <b>79</b> | <b>₹5.49L average CTC; ₹4.34cr payroll</b>        |

| Warehouse headcount is derived, not chosen                 | Working                               | Hours         |
|------------------------------------------------------------|---------------------------------------|---------------|
| Technical enquiry and part identification                  | 9,200 orders × 1.4 hours              | 12,880        |
| <b>Goods inward, provenance, serialisation and imaging</b> | <b>45,140 line items × 0.28 hours</b> | <b>12,639</b> |

|                                                              |                                                        |                            |
|--------------------------------------------------------------|--------------------------------------------------------|----------------------------|
| Picking, packing and despatch                                | 45,140 × 0.22 hours                                    | 9,931                      |
| Reconditioning and exchange unit work                        | 380 units × 26 hours                                   | 9,880                      |
| <b>Stock control, criticality review and off-hire ledger</b> | <b>14,800 SKUs × 0.30 hours</b>                        | <b>4,440</b>               |
| <b>Operations staff required</b>                             | <b>49,770 ÷ 1,801 productive hours per person-year</b> | <b>27.6, staffed at 28</b> |

**The 1,801 hours are 285 available days (365 less 52 Sundays, 12 holidays and 16 days of leave) at eight hours, times a 79% productive factor** — the 21% being goods-inward queues behind a customs clearance under rule (h), waiting on an OEM to confirm a chain, and the stop-start of a counter operation. **And the largest single block in the table is goods inward: 12,639 hours tracing, serialising and photographing items a competitor books into stock in a tenth of the time, because he is checking the quantity and we are checking the chain. IT IS THE ONLY LINE HERE WHERE WE SPEND MORE THAN THE TRADE ON WORK THE CUSTOMER CANNOT SEE, DID NOT ASK FOR, AND WOULD NOT MISS UNTIL THE ONE OCCASION IT MATTERED** — ₹128 a line item against a ₹11,875 average engine spare.

## 11. Implementation Timeline & Milestones

| Phase                                                       | Months | Milestone                                                                                        |
|-------------------------------------------------------------|--------|--------------------------------------------------------------------------------------------------|
| Warehouse, funding and first distributorships               | 0-9    | Racking and bins, OEM agreements, term loan and stock limit, 36 staff                            |
| <b>Provenance verification from the first goods receipt</b> | 0-4    | <b>Serialisation, imaging and chain checking live before any item enters stock</b>               |
| <b>Criticality classification of the opening catalogue</b>  | 3-10   | <b>Every SKU classed by consequence of absence before any stocking decision is made on turns</b> |
| Reconditioning workshop and test benches                    | 8-18   | Exchange units with recorded histories; 34% margin and the answer to obsolescence                |
| Consignment stock aboard and at yards                       | 14-26  | Highest-consequence items placed where the failure will happen                                   |
| Off-hire-avoided ledger published to customers              | 18-30  | The slow shelf given a number that customers can see                                             |

| Milestone that must not slip                        | Why                                                                                                                                                                                                        |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Provenance before the first receipt</b>          | <b>A warehouse that has taken stock without a chain for a year cannot retrospectively establish one, and every unverified item on the shelf is an exposure that has to be written off rather than sold</b> |
| <b>Criticality classing before any turns review</b> | <b>Once a stocking decision has been made on turnover, the slow shelf is already gone and the criticality data can only be built forward from what survived</b>                                            |
| The ledger published, not merely kept               | An internal off-hire-avoided figure is a self-serving estimate; the same figure issued to the customers whose vessels it describes is checkable by the only people who would know                          |

|                                              |                                                                                                                                                                  |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reconditioning before the obsolescence bites | The alternative to an unverifiable new part is a verifiable used one, and a yard without that capability will eventually buy the grey-market item under pressure |
|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 12. Financial Plan (Illustrative)

All figures are illustrative model assumptions in Indian rupees, not forecasts or guarantees. Drivers are shown so every number can be changed.

### 12.1 Revenue build (₹ lakh)

| Stream                                                           | Yr 1         | Yr 2         | Yr 3         | Share       | GM           |
|------------------------------------------------------------------|--------------|--------------|--------------|-------------|--------------|
| <b>Main engine, auxiliary and turbocharger spares</b>            | 640          | 1,100        | 1,520        | 40.0%       | 22.0%        |
| Deck, mooring, safety and life-saving equipment                  | 330          | 580          | 836          | 22.0%       | 26.0%        |
| Electrical, automation and navigation equipment                  | 250          | 430          | 646          | 17.0%       | 24.0%        |
| Consumables, filters, seals and lubricants                       | 220          | 340          | 494          | 13.0%       | 17.0%        |
| <b>Reconditioned and exchange units with recorded provenance</b> | 100          | 190          | 304          | 8.0%        | 34.0%        |
| <b>Total</b>                                                     | <b>1,540</b> | <b>2,640</b> | <b>3,800</b> | <b>100%</b> | <b>23.5%</b> |

**Consumables are 13% of revenue at the thinnest margin in the book and their absence stops nothing; engine spares are 40% at 22% and their absence stops the ship. Every competitor is happy to fight us on the first line and nobody wants to fund the second. THE STREAM THAT IS EASIEST TO SELL AND THE STREAM THAT MATTERS ARE NOT THE SAME STREAM, WHICH IS THE WHOLE OF \$6 EXPRESSED AS A REVENUE TABLE.**

### 12.2 What is committed, and what it is measured on

| Commitment                                                               | Yr 1             | Yr 3                                               |
|--------------------------------------------------------------------------|------------------|----------------------------------------------------|
| <b>SKUs delisted on turnover alone, without a criticality assessment</b> | none             | <b>none; 3,640 slow SKUs held</b>                  |
| <b>Off-hire prevented by the slow shelf, published to customers</b>      | not yet measured | <b>68 issues; ₹29.40cr</b>                         |
| <b>Line items with a verified provenance chain at goods inward</b>       | 100%, 16,400     | <b>100%, 45,140; ₹128 each</b>                     |
| <b>Purchases refused because the chain broke</b>                         | 380, ₹0.71cr     | <b>1,240 items, ₹2.34cr; ₹3.05cr of sales lost</b> |
| Items received against a company assurance alone                         | nil              | <b>nil</b>                                         |
| <b>Origin class stated on every invoice line</b>                         | 100%             | <b>100%; OEM 61 / auth 27 / recon 8 / other 4</b>  |

**Row two is the one that makes the first finding auditable rather than rhetorical. Anybody can claim their stock prevents downtime; the ledger names the vessel, the date, the part, the days avoided and the off-hire rate, and it is issued to the owner who would know if it were wrong. IT IS THE ONLY DOCUMENT IN THIS TRADE THAT PUTS A NUMBER ON A THING THAT DID NOT HAPPEN.**

### 12.3 Profit & loss (₹ lakh)

| Line                                                                            | Yr 1       | Yr 2       | Yr 3         |
|---------------------------------------------------------------------------------|------------|------------|--------------|
| Revenue                                                                         | 1,540      | 2,640      | 3,800        |
| Direct cost (goods purchased, warehouse and workshop payroll, freight and duty) | (1,182)    | (2,022)    | (2,906)      |
| <b>Gross profit</b>                                                             | <b>358</b> | <b>618</b> | <b>894</b>   |
| Slow-moving critical stock carrying cost (capital, space, obsolescence)         | (36)       | (62)       | (92)         |
| Provenance verification at goods inward                                         | (24)       | (40)       | (58)         |
| Technical sales and part identification                                         | (62)       | (98)       | (138)        |
| Consignment stock placed aboard and at yards                                    | (12)       | (21)       | (31)         |
| Stock control, criticality review and the off-hire-avoided ledger               | (20)       | (34)       | (49)         |
| Warehouse overhead, racking, utilities and equipment                            | (32)       | (46)       | (62)         |
| IT, catalogue, traceability systems and product liability                       | (26)       | (40)       | (58)         |
| Administration, finance, credit and management                                  | (56)       | (76)       | (98)         |
| <b>EBITDA</b>                                                                   | <b>90</b>  | <b>201</b> | <b>308</b>   |
| Depreciation and amortisation                                                   | (26)       | (34)       | (42)         |
| Finance cost                                                                    | (46)       | (66)       | (84)         |
| Other income (freight recovery, core credits, misc)                             | 18         | 28         | 38           |
| <b>PBT</b>                                                                      | <b>36</b>  | <b>129</b> | <b>220</b>   |
| Tax (fully taxable business income, ~25%)                                       | (9)        | (32)       | (55)         |
| <b>PAT</b>                                                                      | <b>27</b>  | <b>97</b>  | <b>165</b>   |
| Net margin                                                                      | 1.8%       | 3.7%       | <b>4.3%</b>  |
| ROCE on ₹9.00cr                                                                 | 7.1%       | 18.6%      | <b>29.6%</b> |

### 12.4 Project cost & funding (₹ lakh)

| Use of funds                                                               | ₹L  | %   | Source of funds                              | ₹L  |
|----------------------------------------------------------------------------|-----|-----|----------------------------------------------|-----|
| <b>Inventory margin and working capital contribution</b>                   | 288 | 32% | Promoter equity                              | 315 |
| Warehouse fit-out, racking, bins and handling                              | 180 | 20% | Working capital limit drawn at commissioning | 306 |
| Reconditioning workshop plant and test benches                             | 144 | 16% | Term loan                                    | 234 |
| <b>Provenance systems: serialisation, imaging, catalogue, traceability</b> | 117 | 13% | Unsecured promoter loan                      | 45  |
| Vehicles, delivery and consignment-stock kits                              | 72  | 8%  | —                                            | —   |
| Deposits, distributorship fees and registrations                           | 63  | 7%  | —                                            | —   |
| Preliminary, pre-operative and contingency                                 | 36  | 4%  | —                                            | —   |

|       |     |      |       |     |
|-------|-----|------|-------|-----|
| Total | 900 | 100% | Total | 900 |
|-------|-----|------|-------|-----|

## 12.5 Sensitivities (₹ crore PAT, Year 3)

| Scenario                                            | What changes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | PAT     |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Base case as planned                                | As above                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ₹1.65cr |
| Trade-standard practice instead                     | Sell the items we refused on provenance (+₹3.05cr revenue, +₹0.72cr), clear the 3,640 slow SKUs and stop carrying them (+₹0.92cr, and ₹4.86cr of stock released saves ₹0.45cr of interest), no goods-inward provenance work (+₹0.58cr), no consignment stock (+₹0.31cr), no criticality review or ledger (+₹0.19cr), liability cover at market (+₹0.13cr), buy from the cheapest available channel (+₹1.14cr), thinner part identification (+₹0.42cr), thinner stock control (+₹0.18cr), no catalogue traceability (+₹0.22cr) — but carry the claims and returns from wrong or failed parts (–₹0.46cr) and lose the managed-fleet customers who buy on availability and provenance (–₹2.20cr revenue, –₹0.52cr): <b>revenue ₹38.85cr at 26.4% gross margin</b> | ₹4.85cr |
| A counterfeit reaches a vessel despite verification | Engine damage claim, recall of the affected batch and cover excess: ₹1.08cr. Under rule (d) the next renewal is priced on our own record, and no certificate protects us                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ₹0.84cr |
| Obsolescence write-down on a band of slow stock     | A fleet renewal makes a class of parts unsellable: ₹0.96cr written off. This is the risk the policy in §6 deliberately accepts, and it will happen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ₹0.93cr |
| Engine spares volumes down 20%                      | A fleet lay-up or a lost distributorship on 40% of the book: ₹3.04cr of revenue at 22%: revenue ₹34.96cr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ₹1.14cr |
| Interest rates up 260 basis points                  | ₹9.00cr of average borrowings against stock and receivables: ₹0.23cr of extra finance cost                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ₹1.47cr |

The trade-standard row is ₹4.85 crore against ₹1.65 crore, and the largest single component is simply not carrying the shelf. Clearing 3,640 slow SKUs releases ₹4.86 crore of capital, removes ₹0.92 crore of carrying cost and saves ₹0.45 crore of interest — ₹1.37 crore of pre-tax improvement, achieved by a decision every textbook would applaud. THE FIRM THAT MAKES IT EARNs NEARLY THREE TIMES AS MUCH, REPORTS BETTER WORKING CAPITAL, AND WILL NEVER SEE THE ₹29.40 CRORE OF OFF-HIRE IT HAS TRANSFERRED TO ITS CUSTOMERS — BECAUSE THAT NUMBER HAS NEVER BEEN ON ANYBODY'S PROFIT AND LOSS.

## 12.6 Volumes and unit economics (Year 3)

| Physical driver                      | Volume | Realisation | Revenue |
|--------------------------------------|--------|-------------|---------|
| Consumable line items                | 19,760 | ₹2,500      | ₹494L   |
| Engine and turbocharger line items   | 12,800 | ₹11,875     | ₹1,520L |
| Deck and safety line items           | 8,800  | ₹9,500      | ₹836L   |
| Electrical and navigation line items | 3,400  | ₹19,000     | ₹646L   |
| Reconditioned exchange units         | 380    | ₹80,000     | ₹304L   |

|                                                 |        |             |         |
|-------------------------------------------------|--------|-------------|---------|
| Total line items on 9,200 orders to 340 vessels | 45,140 | 14,800 SKUs | ₹3,800L |
|-------------------------------------------------|--------|-------------|---------|

| Derived figure                                | Working                                          | Result                  |
|-----------------------------------------------|--------------------------------------------------|-------------------------|
| Slow-moving stock and its carrying cost       | 3,640 SKUs, ₹4.86cr of ₹9.80cr inventory, at 19% | 24.6%; 49.6%; ₹0.92cr   |
| Off-hire prevented                            | 68 critical issues × 4.6 days × ₹9.40L           | ₹29.40cr, a 32:1 return |
| Our gross profit on those 68 issues           | ₹0.97cr of sales at the 23.5% blend              | ₹0.23cr                 |
| Provenance verification per line item         | ₹0.58cr over 45,140 line items                   | ₹128                    |
| Open-market sample failure / of which papered | 37 of 240 samples; 31 of the 37                  | 15.4%; 83.8%            |
| Operations staff / goods purchased            | 49,770 ÷ 1,801; ₹2,767.6L of ₹3,800L             | 27.6 at 28; 72.8%       |

**₹128 a line item is what it costs to know where a part came from, against an average engine spare of ₹11,875 — about one per cent. It is a serial number, a photograph and a traced purchase chain, and any distributor in India could do it tomorrow. THE REASON IT IS NOT DONE IS NEITHER COST NOR DIFFICULTY. IT IS THAT THE CUSTOMER CANNOT TELL WHETHER IT WAS DONE, THE COUNTERFEIT IS NEVER IDENTIFIED AFTER IT FAILS, AND A SUPPLIER WHO SKIPS IT LOOKS EXACTLY LIKE ONE WHO DOES NOT — ONLY CHEAPER.**

### 13. Funding Requirement & Bankability

| Item                             | Position                                                                                                                                                                                                                                                                        |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Requirement                      | <b>₹9.00cr:</b> ₹3.15cr promoter equity, ₹3.06cr working capital limit drawn at commissioning, ₹2.34cr term loan, ₹0.45cr unsecured promoter loan                                                                                                                               |
| Security                         | Hypothecation of stock and receivables; warehouse fit-out and workshop plant; personal guarantee of the promoter. The working capital limit is sanctioned at ₹6.20cr against ₹9.80cr of stock and the receivable book, with average total borrowings of about ₹9.00cr in Year 3 |
| Debt service                     | Year 3 EBITDA ₹3.08cr against interest ₹0.84cr and scheduled repayment ₹0.42cr; DSCR 2.44x from Year 3                                                                                                                                                                          |
| The security is also the finding | <b>A lender securing against stock will discount the slow-moving half hardest, because it is the least realisable — which is precisely the half that keeps the customers. A drawing-power formula built on ageing will always instruct this business to become a worse one</b>  |
| Currency and duty                | Under rule (h) most of the catalogue is import-priced and long-lead; duty, IGST and a rupee move all land on a 72.8% bought-in book before anything is sold                                                                                                                     |
| What a lender should test        | <b>Not the stock turns — the criticality-class fill rate and the count of provenance refusals. The first says whether the promise to customers is being kept, and the second is the only evidence that cheap stock is being turned away rather than quietly accepted</b>        |

| Year   | EBITDA  | Interest | Repayment  | DSCR  |
|--------|---------|----------|------------|-------|
| Year 1 | ₹0.90cr | ₹0.46cr  | Moratorium | —     |
| Year 2 | ₹2.01cr | ₹0.66cr  | ₹0.30cr    | 2.09x |

|        |         |         |         |       |
|--------|---------|---------|---------|-------|
| Year 3 | ₹3.08cr | ₹0.84cr | ₹0.42cr | 2.44x |
|--------|---------|---------|---------|-------|

## 14. Risk Analysis & Mitigation

| Risk                                                                      | Impact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Mitigation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The part that saves the most money is the part nobody can afford to stock | A spare has two values moving in opposite directions: <b>its value in use is the off-hire it prevents, its value in inventory is negative — and they are inversely related as ENGINEERING rather than accident, because components whose failure stops a ship are designed not to fail often. HIGH CONSEQUENCE MEANS LOW FREQUENCY, LOW FREQUENCY MEANS DEAD STOCK, AND DEAD STOCK IS WHAT EVERY DISTRIBUTOR IS MEASURED ON NOT HAVING.</b> Our 3,640 slowest SKUs are 24.6% of the catalogue, 8.4% of line items and <b>49.6% of inventory value — ₹4.86cr — costing ₹0.92cr a year to carry. In Year 3 they prevented ₹29.40cr of off-hire on 68 critical issues (4.6 days at ₹9.40L), a 32:1 return — and OUR GROSS PROFIT ON ALL 68 WAS ₹0.23cr. Nobody behaves badly: a finance director ordering that shelf cleared is right on every measure he has been given, and his measures have no column for the off-hire</b>            | <b>INVERT THE STOCKING RULE AND PUBLISH THE RESULT. No SKU delisted on turnover alone — delisting requires a RECORDED criticality assessment showing its absence cannot cause an off-hire — with an availability commitment published per criticality class. ₹0.92cr of carrying cost accepted as a deliberate expense rather than a failure; ₹0.31cr of consignment stock placed aboard vessels and at yards, paid only on consumption, so the part is already where the failure will happen under rule (c); and an OFF-HIRE-AVOIDED LEDGER naming vessel, date, part, days avoided and rate, ISSUED TO THE OWNER WHO WOULD KNOW IF IT WERE WRONG. GENERAL RULE: WHERE THE VALUE OF A THING IS THE COST IT PREVENTS, THE MERCHANT'S INVENTORY MEASURE IS THE INVERSE OF THE CUSTOMER'S NEED — SO STOCK BY CONSEQUENCE, NOT BY TURNS</b> |
| The counterfeit and the genuine part carry the same certificate           | The chain runs on paperwork nobody can authenticate at the point of fitting, and <b>printing is the cheapest thing in the transaction. Of 240 items bought anonymously on the open market, 37 FAILED PROVENANCE VERIFICATION AND 31 OF THOSE 37 CARRIED CERTIFICATION THAT LOOKED ENTIRELY GENUINE — THE PAPERWORK IS NOT THE WEAK POINT IN THE COUNTERFEIT, THE PAPERWORK IS THE PRODUCT. And the failure mode is invisible by design: the part goes INSIDE a machine, so when it fails the MACHINE fails, the investigation records an engine failure, and the part is scrapped with the component. A COUNTERFEIT MARINE SPARE IS NEVER BLAMED. This is exactly the hazard \$6 creates: holding deep, slow and obsolete stock means sourcing what OEMs no longer supply — and the place an obsolete controller can still be found is the grey market. THE VERY POLICY THAT PREVENTS OFF-HIRE WOULD FILL THE WAREHOUSE WITH FAKES</b> | <b>PROVENANCE ARRIVES WITH THE INVENTORY, NOT AFTER IT. Every item traced to an OEM or authorised channel at goods inward, SERIALIZED AND PHOTOGRAPHED — 45,140 line items at ₹128 each, ₹0.58cr a year — and REFUSED outright where the chain breaks: 1,240 line items and ₹2.34cr of purchase value turned away, costing ₹3.05cr of sales and ₹0.72cr of gross profit. No item received against a company assurance alone, and no director may authorise an exception. Where no verifiable new part exists we RECONDITION a genuine used one with a recorded history rather than buy an unverifiable new one — 380 units a year at the best margin in the book. Origin class stated on EVERY invoice line: OEM 61%, authorised 27%, reconditioned 8%, other and disclosed 4%</b>                                                       |

|                                          |                                                                                                                                               |                                                                                                                                                                                                                                          |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Obsolescence write-down                  | <b>The risk the \$6 policy deliberately accepts: a fleet renewal makes a band of slow stock unsellable, ₹0.96cr, and PAT falls to ₹0.93cr</b> | Criticality classes reviewed annually against the vessels actually served, not against a static list; consignment and exchange-core structures move some obsolescence risk; reconditioning gives obsolete stock a second route to market |
| <b>A counterfeit reaching a vessel</b>   | <b>Claim, batch recall and cover excess: ₹1.08cr and ₹0.84cr of PAT; under rule (d) our own record prices the renewal</b>                     | Serialisation and imaging make a recall bounded rather than open-ended; refusal record demonstrates the system operating; product liability and recall cover carried above market                                                        |
| Working capital and interest             | ₹9.80cr of stock on ₹38.00cr of revenue; +260 bp is ₹0.23cr and ₹1.47cr of PAT                                                                | Consignment shifts some holding to the point of use; exchange-core credits reduce net purchase; the slow shelf is budgeted and ring-fenced rather than allowed to grow silently                                                          |
| Distributorship and volume concentration | Engine spares are 40% of revenue; a lost agency or fleet lay-up is ₹1.14cr of PAT                                                             | Five streams with different drivers; reconditioning is agency-independent; 340 vessels across owners rather than a single managed fleet                                                                                                  |
| Import, duty and currency                | Under rule (h) 72.8% of revenue is bought-in and largely imported                                                                             | Bonded storage and staged clearance; price validity matched to quote validity; duty and freight recovered as stated line items rather than absorbed                                                                                      |

## 15. SWOT Analysis

| Strengths                                                                                                                                                                                                                                               | Weaknesses                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The only criticality-based stocking policy in the market; a published off-hire-avoided ledger; verified provenance on all 45,140 line items; 1,240 refusals a year as evidence; reconditioning as the honest answer to obsolescence; 340 vessels served | 4.3% net margin; commitments cost ₹2.85cr against ₹1.65cr of PAT; ₹4.86cr of capital in stock that barely moves; dearer per line; 72.8% of revenue is bought-in; the advantage is only ever visible in the negative                           |
| Opportunities                                                                                                                                                                                                                                           | Threats                                                                                                                                                                                                                                       |
| Owners who have lost days waiting for a part; ageing tonnage with obsolete automation; managed fleets that buy on availability; consignment arrangements that lock in the account                                                                       | Price-led purchasing offices ashore; obsolescence write-downs; a counterfeit slipping through; interest on a stock-heavy balance sheet; and a lender's drawing-power formula that instructs us to clear the very shelf that wins the business |

**The honest summary is that this supplier deliberately holds the stock its competitors are congratulated for clearing, and refuses the cheap goods that nobody could prove were wrong. It is paid for by reconditioning at 34%, by deck and safety equipment on fixed survey cycles, and by managed fleets that have learnt to buy availability rather than price. THE BET IS THAT A SUPERINTENDENT WHO HAS ONCE WATCHED A VESSEL SIT FOR ELEVEN DAYS WAITING FOR A ₹1.42 LAKH ACTUATOR WILL NEVER AGAIN AWARD THE ACCOUNT ON A LINE-BY-LINE PRICE COMPARISON.**

## 16. Recommended AiSevak Tools for This Business

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- **Business plan and project report generator** — for a stock-secured working capital limit and a term loan on warehouse and workshop.
- **Compliance calendar** — type-approval and servicing intervals on life-saving and fire-fighting equipment, distributorship renewals, importer registrations and bonded storage, remembering rule (b) that survey cycles drive replacement dates.
- **Cost and pricing calculator** — landed cost with duty and freight, carrying cost by criticality class, and the off-hire-avoided calculation per issue.
- **GST and invoicing helper** — goods versus reconditioning-service treatment, exchange-core credits, and import duty and IGST recovery.
- **Labour and payroll toolkit** — warehouse headcount derived from line-item and order volumes, shift rostering, EPF and ESI.
- **Contract and terms drafting helper** — the criticality and availability commitment, consignment stock terms, provenance and origin-class warranties, and exchange-unit terms.
- **Loan and subsidy application helper** — a drawing-power formula negotiated on criticality rather than ageing alone.

Every tool above is **free to use on AiSevak and needs no signup to explore**. The toolkit link at the end of this plan opens the whole maritime set.

## 17. Key Assumptions & Notes

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- **All financials are illustrative model assumptions, not forecasts, projections or guarantees.** Revenue, SKU and line-item counts, margins, inventory value, off-hire rates and sample failure rates are editable inputs; outcomes depend on fleet activity, import costs, the rupee and distributorship terms. Figures are in Indian rupees. **This plan is the fifth in vertical 58 and inherits the ten maritime anchor rules (a)-(j) from §17 of the ship-repair yard plan — in particular (b) the survey cycle is a calendar, which is what drives the deck and safety replacement book; (c) a ship earns only at sea, which is the entire value of the slow shelf; (d) liability is priced on our own record, so one counterfeit reprints the business; and (h) spares are import-priced and long-lead on a 72.8% bought-in book.**
- **The central finding is that the part that saves the most money is the part nobody can afford to stock.** A spare's value in use is the off-hire it prevents and its value in inventory is negative, **and the two are inversely related as engineering rather than accident: the components whose failure stops a ship are designed not to fail often. High consequence means low frequency, low frequency means dead stock, and dead stock is what every distributor is measured on not having.**
- **Our own numbers state it exactly.** 3,640 SKUs — 24.6% of the catalogue and 8.4% of line items — sit on **₹4.86 crore of ₹9.80 crore of inventory, 49.6% of the money for 8.4% of the movement, at ₹0.92 crore a year of carrying cost. In Year 3 they prevented ₹29.40 crore of off-hire across 68 critical issues at 4.6 days and ₹9.40 lakh a day — a 32:1 return — while our gross profit on all 68 was ₹0.23 crore. Nobody behaves badly: a finance director ordering that shelf cleared is right on every measure he has been given, and his measures have no column for the off-hire. GENERAL RULE: WHERE THE VALUE OF A THING IS THE COST IT PREVENTS, THE MERCHANT'S INVENTORY MEASURE IS THE INVERSE OF THE CUSTOMER'S NEED — SO STOCK BY CONSEQUENCE, NOT BY TURNS.**
- **The remedy is an inverted stocking rule and a published ledger.** No SKU delisted on turnover alone; delisting requires a recorded criticality assessment; availability committed per criticality class; ₹0.92 crore of carrying cost

accepted as a deliberate expense; **₹0.31 crore of consignment stock placed aboard and at yards and paid only on consumption; and an off-hire-avoided ledger naming vessel, date, part, days avoided and rate, issued to the owner who would know if it were wrong.**

- **The second thread is that the counterfeit and the genuine part carry the same certificate, and it is the control on the hazard the first remedy creates.** Of 240 items bought anonymously on the open market, **37 failed provenance verification and 31 of those 37 carried certification that looked entirely genuine — the paperwork is not the weak point in the counterfeit, the paperwork is the product. And the failure mode is invisible by design: the part goes inside a machine, so when it fails the machine fails, and it is scrapped with the component. A counterfeit marine spare is never blamed.**
- **And it is precisely the hazard §6 creates.** Holding deep, slow-moving and obsolete stock means sourcing what OEMs no longer supply and authorised channels no longer carry, **and the place an obsolete controller for a 1998 automation system can still be found is the grey market — so the very policy that prevents off-hire is the policy that would fill the warehouse with fakes.** Control: **every item traced, serialised and photographed at goods inward (45,140 items at ₹128 each, ₹0.58 crore), refused where the chain breaks (1,240 items, ₹2.34 crore of purchases, ₹3.05 crore of sales and ₹0.72 crore of gross profit forgone), reconditioning as the answer to obsolescence, and the origin class stated on every invoice line — OEM 61%, authorised 27%, reconditioned 8%, other 4%.**
- **Volumes, unit economics and headcount.** 19,760 consumable line items at ₹2,500, 12,800 engine and turbocharger items at ₹11,875, 8,800 deck and safety at ₹9,500, 3,400 electrical and navigation at ₹19,000 and 380 exchange units at ₹80,000 — 45,140 line items on 9,200 orders to 340 vessels, ₹38.00 crore, of which ₹27.68 crore is goods purchased. **Warehouse headcount is derived, not chosen:  $49,770 \text{ man-hours} \div 1,801 \text{ productive hours per person-year} = 27.6$ , staffed at 28,** built from 9,200 orders at 1.4 hours of technical identification, 45,140 items at 0.28 hours of goods inward and provenance, 0.22 hours of picking, 380 units at 26 hours of reconditioning and 14,800 SKUs at 0.30 hours of criticality review. **The largest single block is goods inward, and almost all of it is provenance work a competitor completes in a tenth of the time — because he is checking the quantity and we are checking the chain.** 79 staff at ₹5.49 lakh average CTC.
- **Compliance and professional advice.** Type approval and certified servicing intervals on life-saving and fire-fighting equipment; OEM and authorised-distributor agreements; importer registrations, customs classification and valuation, duty, IGST, bonded storage and re-import of exchange cores under rule (h); the class, flag and port state interface under rule (a); recorded overhaul history and test certification on reconditioned units with approved service-station status where required; product liability and recall cover under rule (d); GST on goods and on reconditioning services at differing treatment; Legal Metrology on packaged items; Companies Act, EPF, ESI and TDS. **Note the structural point: neither problem here is a regulatory failure — the first is a commercial measurement problem, since no regulator can require a private company to carry dead stock and none should; and the second is that certification is a document travelling separately from the thing it describes, so any system built on transferable paper can be defeated by better paper.** Professional advice should be taken on distributorship and consignment terms, provenance and origin-class warranties, product liability structure, and customs valuation on exchange cores.

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