



INSPECTION PROGRAMME FOR MACHINERY SAFETY

Scope

This programme provides a structured approach to verify the safety of **any industrial machinery in workplaces, including those listed in the Fifth Schedule of the Workplace Safety and Health (WSH) Act**. However, it does not cover lifting equipment and pressure vessels, as these are statutory equipment and are subjected to additional requirements under the WSH Regulations.

The programme is based on **Singapore Standard SS 537: Code of Practice for Safe Use of Machinery – Part 1: General Requirements** and **SS ISO 12100: 2024 Safety of machinery – General principles for design – Risk Assessment and Risk Reduction**, aiming to help workplaces meet the requirements of the WSH Act.

Who should use this programme?

- Occupiers of workplaces or Owners of machinery who are unsure whether their machinery is safe.
- Those who have acquired second-hand machinery or purchased new machinery from a manufacturer or supplier.
- Those who already have machinery in use and want to verify its safety.

How to use this programme?

1. Conduct a self-check with **Part A**: This helps determine if the machinery meets basic safety requirements.
2. If there are any doubts, contact an [Inspection Company listed on the Ministry of Manpower's website](#) to proceed with **Part B**, where a more detailed assessment will be conducted.

Part A requires Occupiers of workplaces or Owners of machinery to:

- ✓ Check for safety mark or certification.
- ✓ Look for built-in safety features.
- ✓ Ensure that the operating / user manual is available and is easy to understand.
- ✓ Check that no parts have been removed or modified.

Each machinery must be accompanied by its own completed checklist. If the machinery does not meet the stipulated requirements for Part A, the Occupier or Owner must engage an Inspection Company to proceed with Part B of this programme.

Part B requires the Inspection Company to:

- ✓ Conduct inspection on the machinery using the inspection checklist.
- ✓ Complete the verification report with the inspection checklist and make known the findings to the Owner of the machinery.
- ✓ Advise the Occupier or Owner on any appropriate corrective actions or rectifications.

Each machinery must be accompanied by its own completed inspection checklist. All responses in this checklist must be 'Yes' or 'NA' (Not Applicable). If any response in the checklist is 'No', the Inspection Company must advise the Occupier or Owner to:

- Rectify such items before re-verification by the Inspection Company is conducted,
OR
- Stop the use of the machinery.

Part A: Self-Check by Occupiers of Workplaces or Owners of Machinery

- Each machinery must be accompanied by its own completed inspection checklist.
- A copy of this self-check should be retained for record-keeping.
- The responses for Items 1(a) to 1(d) in the checklist must be 'Yes' or 'No' and cannot be 'NA' (Not Applicable).
- For Items 2 to 4 in the checklist, if any response is marked 'NA', comments must be provided.
- The Occupier or Owner can continue using the machinery if:
 - i) All responses to Items 2 to 4 in the checklist is marked either 'Yes' or 'NA'

AND

- ii) The response to Item 1(a) in the checklist is marked 'Yes'.

Otherwise, the Occupier or Owner must engage an Inspection Company to proceed with Part B of this programme.

1. General Information of Machinery

| | |
|-------------------------------------|---|
| i) Owner | <ul style="list-style-type: none">- Name- UEN- Address- Contact Details |
| ii) Machinery Details | <ul style="list-style-type: none">- Machine Brand- Machine Model- Serial Number (if available)- Year of Manufacture (if known) |
| iii) Manufacturer/Supplier | <ul style="list-style-type: none">- Name- Address- Contact Details |
| iv) Description of Machinery | <ul style="list-style-type: none">- General description of physical appearance- Key components and functions/applications- Location of Use- Condition (New, Used, Refurbished, Operation history)- Date procured/acquired- Photographs |

2. Checklist

| Compliance with Safety Standards | | Yes | No | NA ¹ | Comments |
|----------------------------------|---|-----|----|-----------------|---|
| Item 1 | a) Does the machinery come with the manufacturer's Declaration of Conformity? The certificate could include prevailing and relevant safety standards e.g. ISO, EN, ANSI, etc. | | | | - Occupier or Owner should approach manufacturer or supplier to obtain these documents. If manufacturer or supplier no longer exist, or are unable to provide, then indicate as 'No'. |
| | b) Does the machinery display a safety mark (e.g. Singapore Safety Mark, CE Mark, UKCA Mark etc.)? | | | | |
| | c) Does the machinery come with third party inspection or test reports? | | | | - Obtain from accredited third party, professional engineers or equivalent test reports. |
| | d) Does the machinery come with an operating/user manual? | | | | - Occupier or Owner should approach manufacturer or supplier to obtain these documents. If manufacturer or supplier no longer exist, or are unable to provide, then indicate as 'No'. |
| Designed for Safe Use | | Yes | No | NA | Comments |
| Item 2 | a) Does the machinery have these built-in safety features? | | | | |
| | i. Automatic shut-off – If something goes wrong, does the machine stop on its own. | | | | |
| | ii. Two-hand operation – Requires both hands to operate, reducing accidental activation. | | | | |
| | iii. Emergency stop button – Easy-to-reach and works instantly. | | | | |
| | iv. Interlocks – Prevents dangerous parts from moving when the machine is open. | | | | |
| | v. Guarding for moving parts, sharp edges or pinch points. | | | | |
| | b) Is the machinery stable and will not tip over when in operation? | | | | |

¹ Provide comments for all 'NA'.

| No Unauthorised Modifications or DIY Fixes | | Yes | No | NA | Comments |
|---|---|------------|-----------|-----------|---|
| Item 3 | a) Is the machinery in its original condition (i.e. no unauthorised modifications)? If parts have been removed, replaced, or modified, safety may be compromised. | | | | - Please indicate 'No' if there are no documents/ manuals/ information to check against or if you are unsure. |
| | b) Have repairs been done properly by a qualified person? | | | | |
| Risk Control Measures | | Yes | No | NA | Comments |
| Item 4 | a) Does the machinery have clear warning labels for applicable hazards? (e.g. moving parts, sharp edges, pinch points, safe speeds and force limits, etc.) | | | | |
| | b) Does the machinery operate without excessive noise or vibration? | | | | |
| | c) Risk Assessment is conducted and documented for the safe use of the machinery. | | | | |
| | d) Safe Work Procedures for the use of the machinery is documented and available. | | | | |

Check by (Name and Signature)

Date of Self-Check

Part B: Verification by Inspection Company

- Each machinery must be accompanied by its own completed checklist.
- Comments/Required actions must be provided for all responses marked 'No' or 'NA' (Not Applicable).
- If any response in the checklist is marked 'No', the Inspection Company must advise the Occupier or Owner to:
 - Rectify such items before re-verification by the Inspection Company is conducted, OR
 - Stop the use of the machinery if they do not wish to rectify.
- The Inspection Company must provide the completed checklist and verification report to the Occupier or Owner.
- The Occupier or Owner should retain a copy of this checklist and verification report for record-keeping.

1. General Information of Machinery

| | |
|------------------------------------|---|
| i) Owner | <ul style="list-style-type: none">- Name- UEN- Address- Contact Details |
| ii) Machinery Details | <ul style="list-style-type: none">- Machine Brand- Machine Model- Serial Number (if available)- Year of Manufacture (if known) |
| iii) Manufacturer/ Supplier | <ul style="list-style-type: none">- Name- Address- Contact Details |
| iv) Description of Machine | <ul style="list-style-type: none">- General description of physical appearance- Key components and functions/applications- Location of Use- Condition (New, Used, Refurbished, Operation history)- Date procured/acquired- Photographs |

2. Verification Details

| | |
|-----------------------------------|------------------------------------|
| a) Inspection Date | |
| b) Inspection Conducted By | - Inspector's Name and appointment |
| c) Inspection Company Name | |

3. Checklist

| Compliance to Safety Standards | | Yes | No | NA² | Comments/ Required Actions |
|--|--|------------|-----------|-----------------------|--|
| 1 | Is the machine tested and examined according to applicable guidelines and standards? | | | | <ul style="list-style-type: none"> - If there are no test reports from manufacturer, supplier, accredited laboratories or equivalent (e.g. factory acceptance test reports, third-party certifications), identify relevant standards applicable to the machine type (common standards include ISO, EN, ANSI, and country-specific regulations). - If there are no relevant standards, indicate 'NA' and provide explanation and how safety is ensured. |
| Mechanical Safety & Stability | | Yes | No | NA | Comments/ Required Actions |
| 2 | a) Is the machinery structurally intact? (e.g. no cracks, deformations, or missing parts) | | | | |
| | b) Is the machinery properly secured? (e.g. anchored, if necessary, does not tip over) | | | | |
| | c) Are the moving parts protected? (e.g. guards on sharp edges, pinch points, rotating components) | | | | |
| | d) Is the machinery without unauthorized modifications that affect stability? | | | | |

² Provide comments for all 'NA'.

| | | | | | |
|--|---|------------|-----------|-----------|-----------------------------------|
| | e) If modifications or retrofitting was done to the machinery, were these done according to information supplied by the designer, manufacturer or supplier? | | | | |
| Operational & Functional Safety | | Yes | No | NA | Comments/ Required Actions |
| 3 | a) The machinery functions as intended without erratic movements or malfunctions. | | | | |
| | b) Do the safety features and safety devices function as intended? | | | | |
| | c) Emergency stop button is installed, functional, and easily accessible. | | | | |
| | d) Interlocks that prevent dangerous parts from moving when safety covers are open (if applicable). | | | | |
| Electrical & Control System Safety | | Yes | No | NA | Comments/ Required Actions |
| 4 | a) Electrical wiring is intact, properly insulated, and free of exposed wires. | | | | |
| | b) Electrical enclosures are sealed, labelled, and meet Ingress Protection (IP) rating requirements. | | | | |
| | c) The machinery has a proper grounding system to prevent electrical hazards. | | | | |
| | d) Control panel is properly labelled with clear functions. | | | | |
| | e) No unauthorised electrical modifications or bypassed safety features. | | | | |
| Warning Signs, Labels & User Instructions | | Yes | No | NA | Comments/ Required Actions |
| 5 | a) Warning labels on moving parts, pinch points, and electrical hazards are present and clear. | | | | |
| | b) Safe operating speeds, force limits, and pressure ratings are clearly displayed. | | | | |
| | c) Emergency procedures and shut-down instructions are posted near the machine. | | | | |
| | d) If no operating/ user manual exists, clear safe operating procedures have been documented. | | | | |
| Workplace Environment Safety Check | | Yes | No | NA | Comments/ Required Actions |
| 6 | a) The machinery does not exceed permissible noise levels. | | | | |

| | | | | | |
|---|---|------------|-----------|-----------|---|
| | b) The machinery operates without excessive vibration that could affect stability | | | | |
| | c) The machinery does not emit hazardous fumes, dust, or leaks (if applicable). | | | | |
| | d) Proper ventilation and noise-reduction measures are in place (if applicable). | | | | |
| Maintenance Check and Technical Support | | Yes | No | NA | Comments/ Required Actions |
| 7 | a) The machinery has been regularly maintained (records available). | | | | - If past records are not available, advise the occupier or owner to document the current condition of the machinery and, establish and maintain proper documentation of all future maintenance activities. |
| | b) Records of past repairs done by qualified persons (not DIY fixes) are available. | | | | |
| | c) No temporary or makeshift fixes that compromise safety (e.g., zip ties, tape, loose bolts). | | | | |
| | d) Lubrication, wear parts, and hydraulic/pneumatic systems are in good condition. | | | | |
| | e) Is there information on maintenance and repair requirements for the machinery? | | | | |
| | f) Is the machinery provided with instructions on its maintenance and repair? | | | | |
| | g) Is there information on the hazards and precautions to be taken relating to the maintenance and repair of the machinery? (e.g. LOTO, safety distances, no incompatible work) | | | | |
| | h) Are troubleshooting instructions provided for the machinery? | | | | |
| | i) Is there information on emergency response procedures? | | | | |
| | j) Technical support for the machinery is available. | | | | - State who is providing the technical support. |
| Hazards/risks have been identified and mitigated | | Yes | No | NA | Comments / Required Actions |
| 8 | Have the hazards associated with operating the machinery identified and control measures established? | | | | |

| | | | | |
|---|--|--|--|--|
| List what they are and how they are mitigated: | | | | |
| Hazards | Discussion on Adequacy | | | |
| <ul style="list-style-type: none"> - List hazards <u>Examples of hazards</u> a. sharp edges/corners and protruding parts b. crush, shear, and entanglement points c. contact or entanglement with the machinery d. trapping between the machine and any material or fixed structures e. ergonomic hazards f. being struck by ejected parts of the machinery g. being struck by material ejected from the machinery h. electrical shock i. chemicals that are toxic, irritant, flammable, corrosive, explosive j. fire and explosion k. combustible dust l. noise and vibration m. temperature (high, low) n. inhalation of mist, fume and dust o. overpressure | <ul style="list-style-type: none"> - Discuss whether risks are adequately mitigated | | | |

Verification Report for Machinery Safety

3. Discussion

[This section shall discuss the findings and assessment by the Inspection Company such as if any response in the checklist is “No”, the Inspection Company must discuss the implication and rectifications with the Occupier or Owner of the machinery and make an assessment whether the machinery is safe for operation in the workplace.]

4. Conclusion

[This section shall conclude if the machinery inspected is

- verified to be acceptable for safe use based on Singapore Standard SS 537: Code of Practice for Safe Use of Machinery – Part 1: General Requirements and SS ISO 12100: 2024 Safety of machinery – General principles for design – Risk assessment and risk reduction,**

or

- unacceptable for safe use, with recommended follow-up actions in Annex A.]**

Inspector's Name and Signature

Approved Signatory's Name and Signature

Inspection Company's Name

DD/MM/YYYY

Date of Inspection

