

## OpsPilot

# SWI Module — User Manual

Safe Work Instruction · AI Engineering Co-Pilot



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**What this guide covers** — what a Safe Work Instruction is, how the OpsPilot SWI module works, the questions it will ask, and the document you receive — procedure-led and picture-led, ready for the toolbox. A real worked example (Pump P-101 motor bearing replacement) runs through the document.

## 1. What is a Safe Work Instruction?

A Safe Work Instruction (SWI) is a procedure-led, picture-led document that walks a worker through HOW to perform a task safely, step by step. The dominant content is the procedure itself, with a photo placeholder at every step and the critical safety point called out where it matters.

An SWI is *not* a hazard-analysis document. The detailed hazard register, risk scoring and hierarchy of controls live in a separate JSA, which the SWI references. OpsPilot keeps that line clear — it builds the worker-facing procedure and points to the JSA rather than reproducing it.

The output is built to *ISO 45001 (OH&S management)*, *ISO 12100 (safety of machinery)* and *ISO 14118 (prevention of unexpected start-up)* so it stands up at audit.

## 2. What the OpsPilot SWI module does

Role	Responsibility
<b>AI Coach (OpsPilot)</b>	Builds the SWI — sequences the procedure, structures each step with its key safety point, lists tools, parts and specifications, and produces a photo placeholder and photo description for every step.
<b>Task Expert (you)</b>	Provides the procedure detail — the components, the sequence, the tools, the specifications and the critical safety considerations — and tells OpsPilot what each photo should show.

## 3. How it works — the guided process

Eleven stages, one question at a time. Most of the finished document — around two-thirds — is the step-by-step procedure.

#	Stage	What happens
1	Discipline, JSA & task overview	Sets the discipline (Mechanical / Electrical / Instrument / Multi), the supporting JSA reference, permits, duration and competency.
2	Purpose and scope	States what the task achieves and what is in and out of scope.
3	Equipment overview	Labels the components ① ② ③ that the procedure refers to.
4	Tools, parts & materials	Captures every tool, spare and consumable, with part numbers.
5	Specifications & tolerances	Torques, clearances, temperatures, fluid grades and quantities.
6	Step-by-step procedure	Each step with its action, key safety point, and a description of the photo to capture.
7	Verification & acceptance	The checks and sign-offs required before return to service.
8	Critical safety notes	A compact safety summary that references the JSA.
9	References, approval & photo manifest	Standards, approvals, and a list of every photo to capture.
10	Worker briefing sign-on	The register workers sign at the toolbox briefing.
11	Generate the SWI	Unlocks the complete Word document.

## 4. What you will be asked — have this ready

- The discipline and exactly what the worker will physically be doing.
- The supporting JSA reference, the permits required, and the realistic duration and crew.
- The components involved, and the tools, parts (with part numbers) and consumables.
- The specifications — torques, clearances, temperature limits, fluid grades and quantities.
- The procedure in sequence, the critical safety point at each step, and what each photo should show.

**Tip** — you do not need it perfectly ordered. Give OpsPilot the steps and it will sequence them, flag the safety points, and tell you where a photo adds the most value.

## 5. What makes an OpsPilot SWI different

- **Picture-led.** Every step has a photo placeholder and a written description of what the photo must show — so the captured image is evidence, not decoration.
- **A photo manifest.** The document ends with a numbered list of every photo to capture (e.g. IMG-SWI-MECH-P101-01), so nothing is missed on the day.
- **Procedure-dominant.** Roughly two-thirds of the document is the procedure itself — it is a working instruction, not a policy.
- **JSA-aware.** It references the hazard analysis rather than duplicating it, keeping the two documents in their proper lanes.

## 6. What you receive — the output

A complete Safe Work Instruction (Word) containing:

- Document control and an executive summary.
- Task overview — permits, JSA reference, duration, competency.
- Hazards and controls (compact, referencing the JSA) and required PPE.
- Tools, parts and materials with specifications.
- The step-by-step procedure, each step with its key safety point and photo placeholder.
- Verification and sign-off, critical safety summary, references and approvals.
- The photo manifest and the worker briefing sign-on register.

## 7. Worked example — Pump P-101 motor bearing replacement

The website example: a mechanical task replacing the drive-end and non-drive-end bearings on the P-101 motor — about three hours for two fitters, under a general work permit and an electrical-and-mechanical isolation certificate, referencing JSA-P101-007.

OpsPilot produced a twelve-step procedure, each step carrying its key safety point and a photo to capture. A sample:

Step	Action	Key safety point
1	Obtain permits and isolate the motor (electrical + mechanical)	Verify zero energy — prove-dead/live/dead; fit personal locks
7	Remove the old bearings with the puller	Apply squarely to the inner race; do not heat to remove
9	Heat the new bearing and fit it to the shaft	Induction heater per SOP; never exceed 110 °C
11	Recouple and laser-align to tolerance	Apply thermal-growth offset; record as-left readings

Each of those steps also names its photo — for example, Step 1's manifest entry is the MCC breaker racked out with the personal lock and danger tag visible, the audit evidence shot. The finished SWI is something a fitter can follow at the toolbox without ever opening the OEM manual.

## 8. Getting the best result

- **Think out loud about the steps.** OpsPilot will order and tighten them — you don't need a perfect draft.
- **Name the photo at each step.** A described photo (“putter on the inner race, square to the shaft”) is worth far more than “photo here.”
- **Keep the JSA separate.** Reference it; don't try to fold the full hazard register into the SWI.
- **Capture the specs once.** Torques, limits and grades given early flow through into the right steps automatically.

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