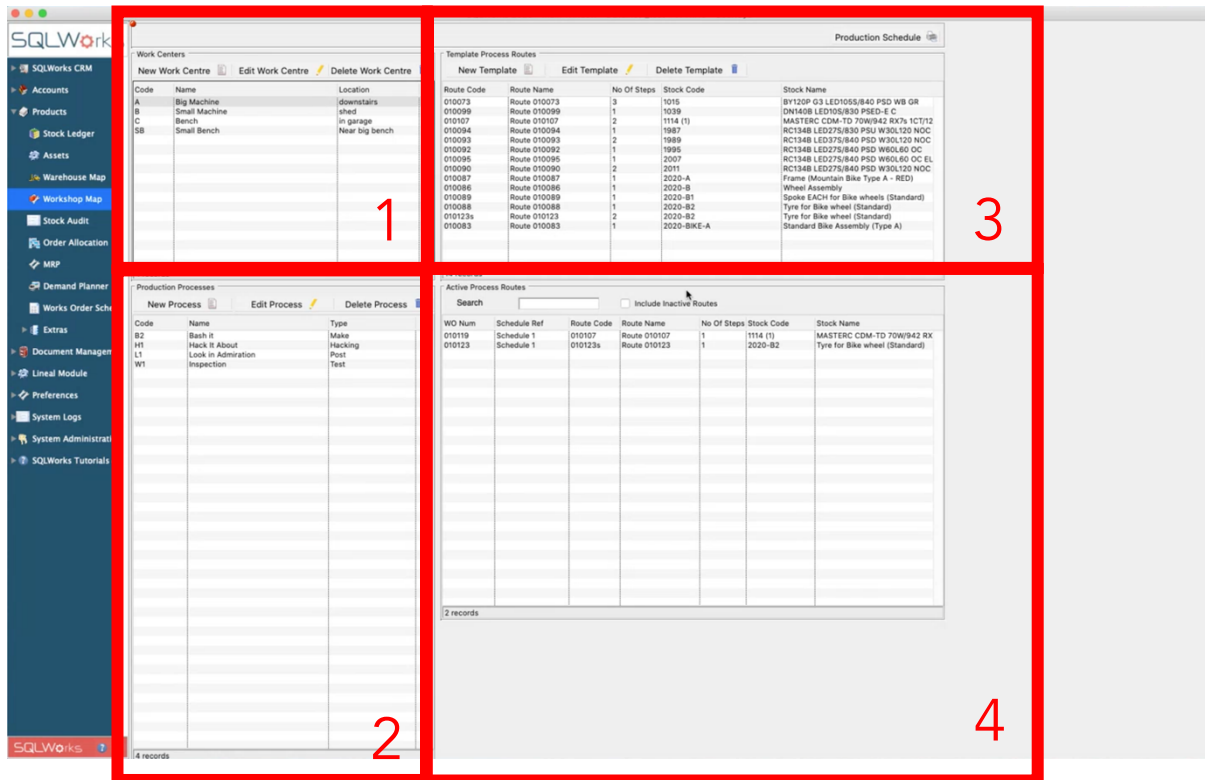


Introduction to Production Planning



SQLWorks Process Planning allows production managers to control manufacturing workspaces, types of work, employee skills assignment, accumulated time and associated costs – all to create organised ‘workflows’ for production.

Workshop Map can be opened via the Products module in the NavBar, and uses three key sets of information:

Work Centres (1)

These are places where work is done – normally a specific location or tooling area on the factory floor.

Processes (2)

This is a type of manufacturing process – such as assembly, welding, mixing, painting etc.

Employees

This is drawn from the employee table used in SQLWorks CRM – listing your company’s staff.

From the Workshop Map you can either edit Work Centres or Processes, create and edit template Process Routes (3) or see Active Process Routes already in use (4).

SQLWorks 2020 - Main Window - Tbl.Work_centre - DB:Lineal_test - VPN:No - User:S

Save & Close Save Cancel

SQLWorks CRM
Accounts
Products
Stock Ledger
Assets
Warehouse Map
Workshop Map
Stock Audit
Order Allocation
MRP
Demand Planner
Works Order Sched
Extras
Document Manage
Lineal Module
Preferences
System Logs
System Administration
SQLWorks Tutorials & .

Info Group

Work Center Code: A Active: ☒

Work Center Name: Big Machine

Description: very noisy

Telephone No: 39033429

Location: downstairs

Outwork PL Account:

Production Group

Available Minutes Per Day: 450 7.50 hours

Available Days Of Week: ☒ Mon ☒ Tue ☒ Wed ☒ Thur ☒ Fri ☐ Sat ☐ Sun

Lag Minutes (Uncosted): 23 0.38 hours

Setup Fixed Cost: 2.00

Setup Minutes: 31 0.52 hours

Setup Rate Per Hour: 2.00

Total Setup Cost: 3.04

Overhead Rate Per Hour: 0.00

Notes Group

1 & 2

3

Editing Work Centres

A work station is any *location* where manufacturing or other product processing takes place – these are typically a factory floor area, machine or tooling station.

Creating or editing a Work Centre opens the Work Centre edit screen – where you can set the details of a Work Centre and key defaults for manufacturing carried out at that Work Centre. (1)

Work Centres may also be linked to a PL account – representing outwork locations with third-party suppliers. (2)

This screen also includes the available manufacturing hours/days at this work centre, lag time between Work Orders, any required setup time/costs and other overheads. (3)

SQLWorks 2020 - Main Window - Production Process - DB:Lineal_test - VPN:No - User

Save & Close Save Cancel

Info Group

Process Code Active ☒

Process Name

Process Type

Employee Group

Select The Staff That Can Perform This Process

- ☒ Dave
- ☒ James
- ☒ Bill
- ☒ Terry
- ☒ Sam
- ☒ Sarah
- ☒ Gary

Default Rate Per Hour
(Default rate is used for prediction and when no staff is identified)

☐ Employee Required

Selected Staff That Can Perform This Process:

Dave
James
Bill
Terry
^

Default Employee

Work Centre Group

Select The Work Centres That Can Be Used

- ☒ Big Machine
- ☒ Small Machine
- ☒ Bench
- ☒ Small Bench

☐ Work Centre Required

Selected Work Centres Where This Process Can Be Performed:

Big Machine
Small Machine
Bench
Small Bench

Default Work Centre

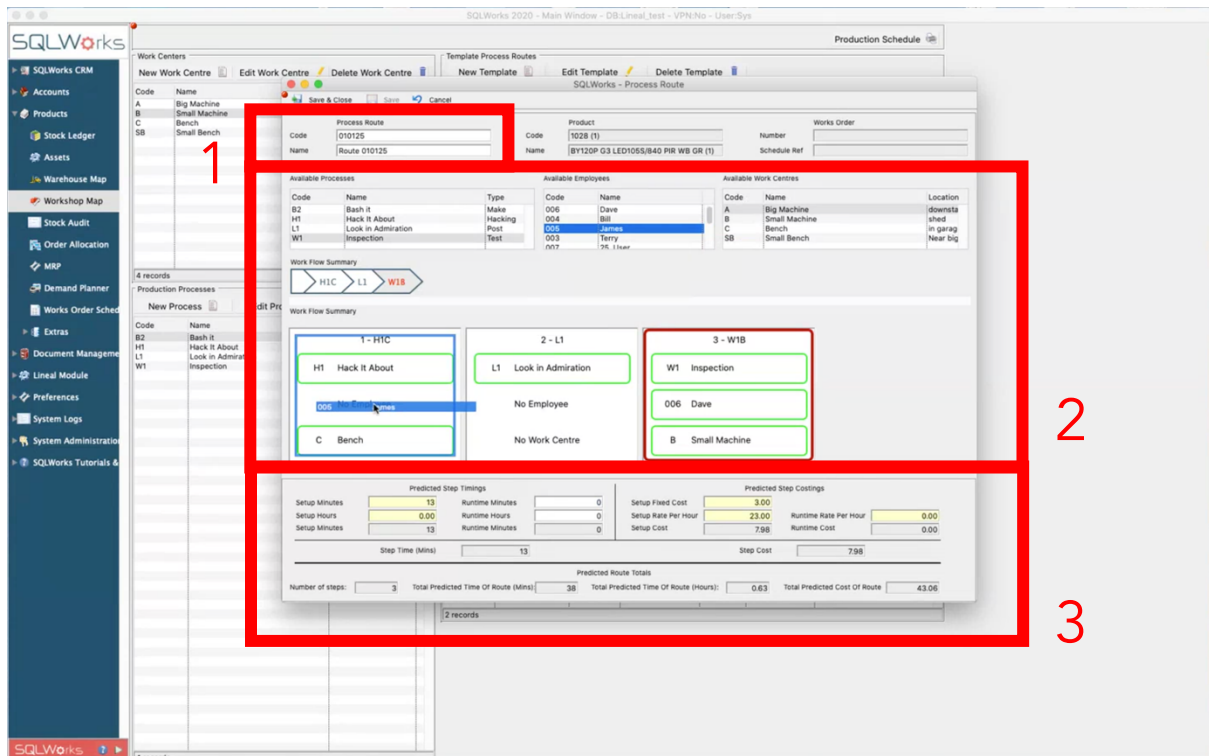
Editing Production Processes

A Production Process is a *type of work* used during the manufacturing process.

Creating or editing a Production Process opens the Production process edit screen – where you can set the details of a Production Process (1), specify which employees are approved to carry out this process (2) and at which Work Centres this process can take place. (3)

These choices regulate which process routes will be available to your Works Orders when manufacturing.

For example, a process named 'Welding' might be performed by 'Welder A' or 'Welder B' at either 'Welding Station 1' or 'Welding Station 2.'



Template Process Routes

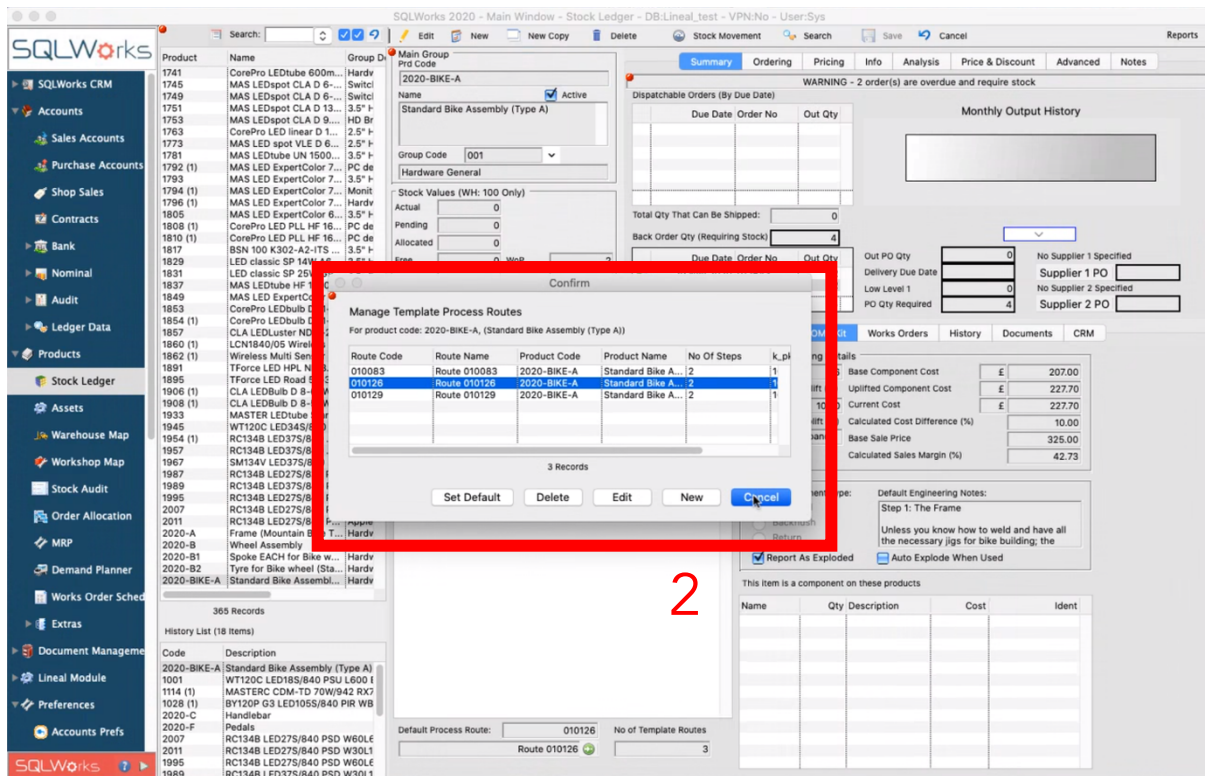
A Process Route is the default workflow of work centres, production processes and assigned employees that a bill of material (BOM) goes through to be fully manufactured.

Creating or editing a Template Process Route opens the Process Route Edit screen. SQLWorks will first prompt you to choose which stock item a new Process Route applies to if new, then ask you to name the template. (1)

In the middle section of the screen (2) you can add a sequential set of Production Process steps for manufacturing (called a 'Workflow') by dragging them from the list of Production Processes.

Each of these workflow steps has two additional fields for default work centre and employee where these saved settings already exist for this kind of process, but these can also be specified by dragging in other options from the Work Centre or Employee tables.

Underneath each step in the Workflow are a series of cost and time variables for that process in this workflow. These default to the defaults of that process, but can be edited and re-saved for specific workflows where needed by clicking on that workflow step and typing new values before saving the template process route.



Using a Process Route for a Bill of Materials.

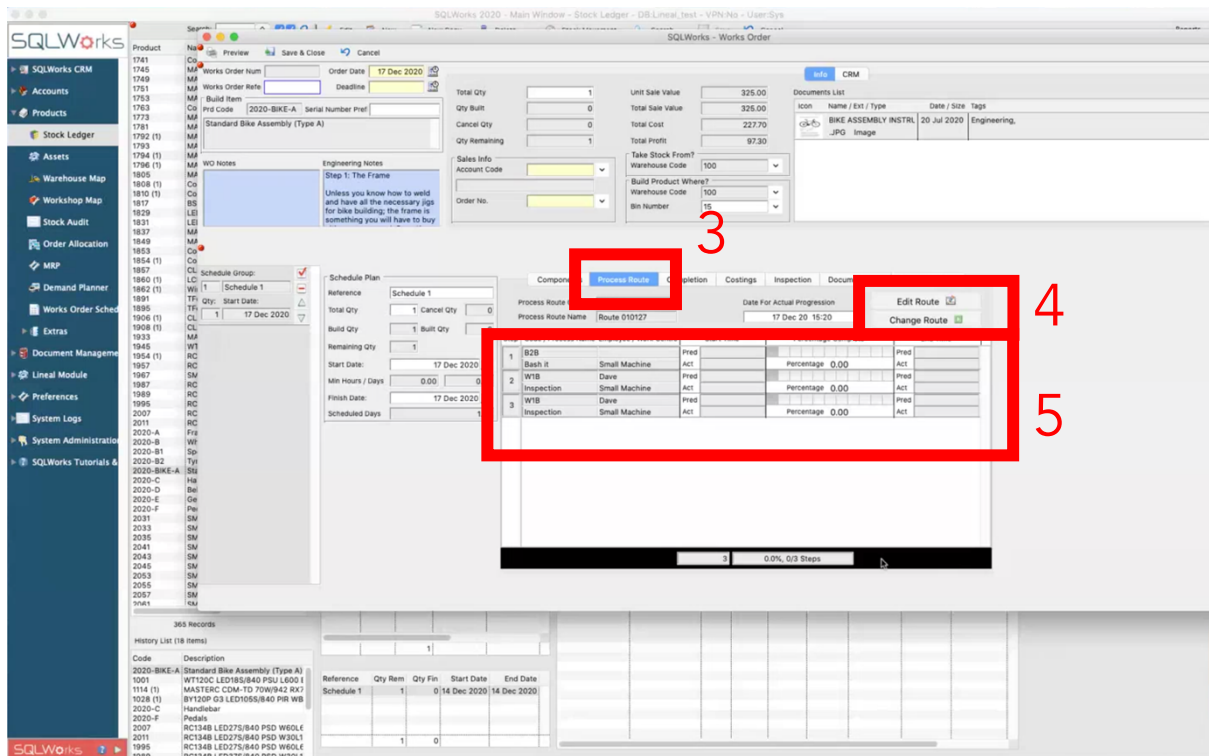
The default Process Route for a Bill of Materials (BOM) can be set from the 'BOM/Kit' tab under a stock item by clicking the 'Manage Process Route' button (1).

Multiple potential Process Routes can be selected from your list of saved templates for this item, with the default being set by using the 'Set Default' button. (2)

If you use alternative builds of a BOM, each alternative build can have a distinct default Process Route.

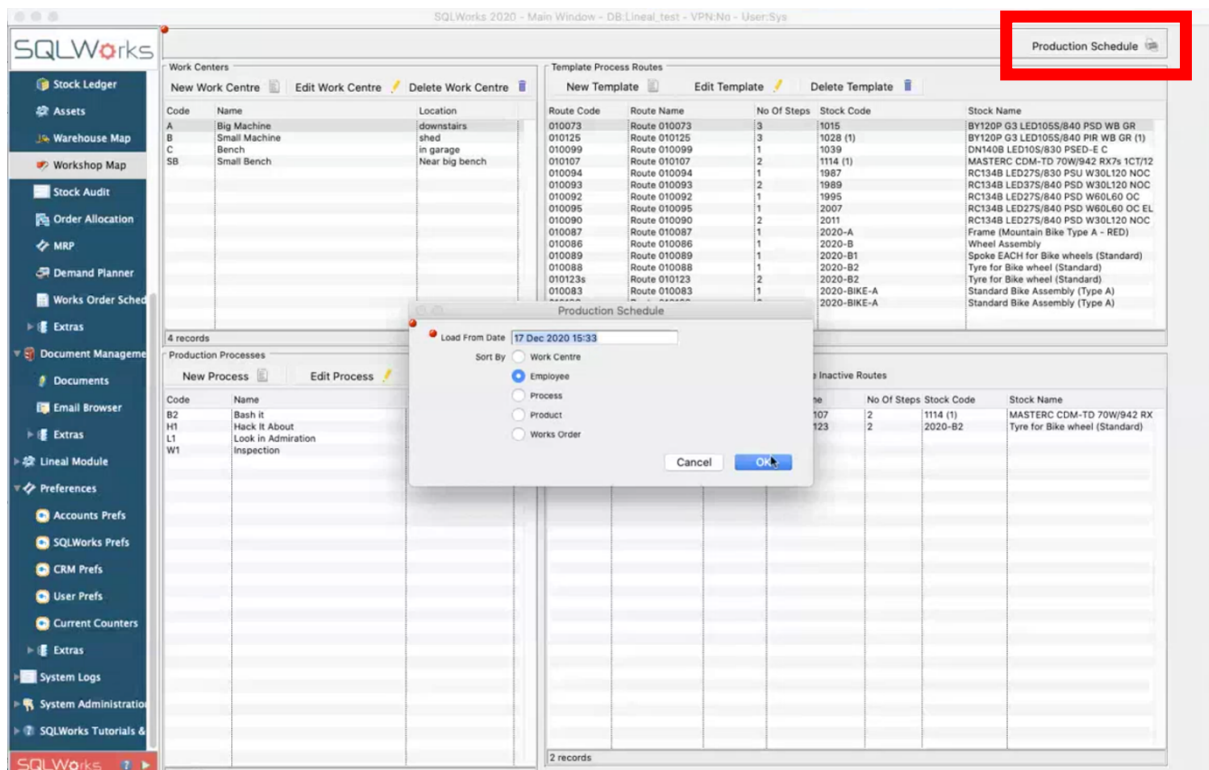
When opening a Works Order, Process Routing is available under the 'Process Routes' Tab. (3) The default Process Route assigned to the BOM will load automatically, along with expected completion times based on the timings saved against the chosen workflow steps.

Each step can be edited by clicking the 'Change Route' button (4) or moved along a 'percentage complete' progress scale by clicking on the progress measure. (5)

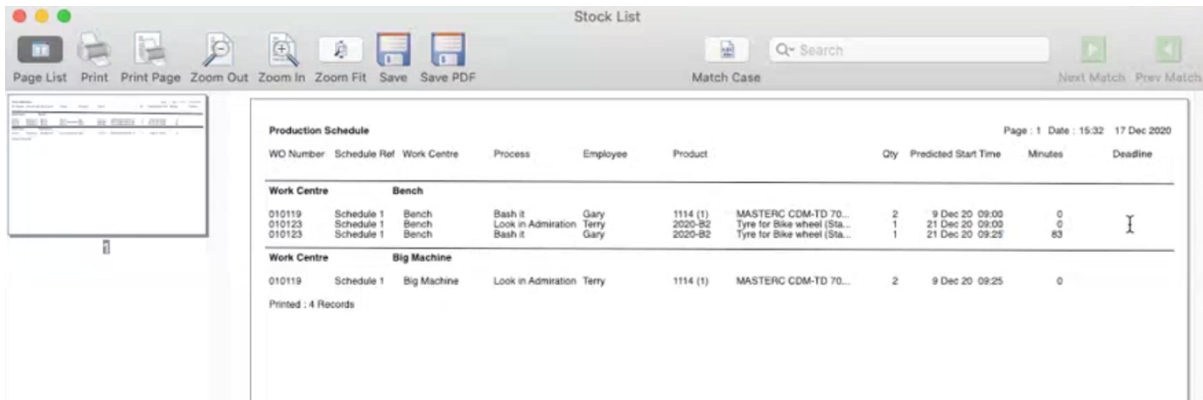


Production Planning Reporting

The Workshop Map can also be used to report globally across all active Production Planning by clicking on the 'Production Schedule' button in the top right. (1)



SQLWorks will prompt a report options menu asking the user to specify the report date, and whether the report should organise the data from the point of view of Work Centre, Employee, Process, Stock Item or Works Order. By selecting the correct option and clicking 'OK' the user can load the report from any of these perspectives.

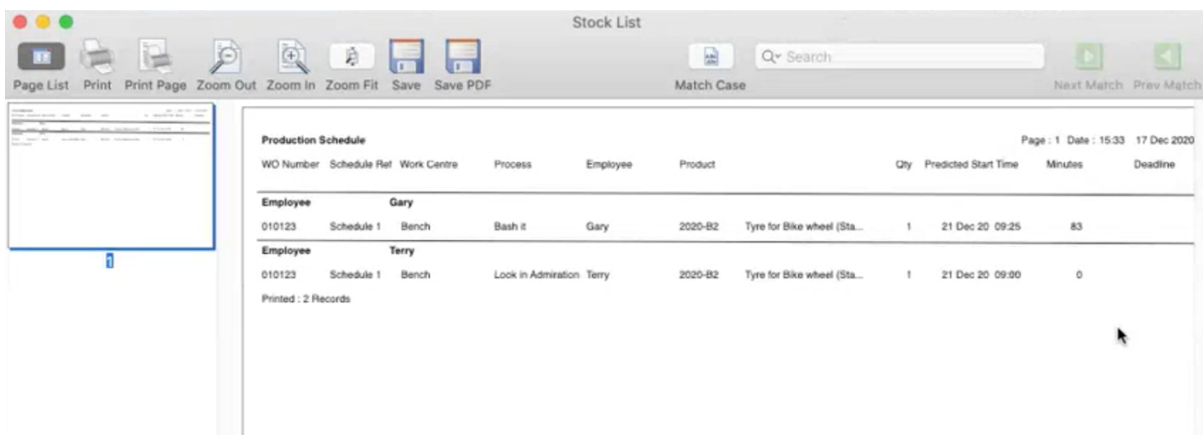


The screenshot shows the 'Stock List' report in SQLWorks. The report is titled 'Production Schedule' and is organized by 'Work Centre'. The table has columns: WO Number, Schedule Ref, Work Centre, Process, Employee, Product, Qty, Predicted Start Time, Minutes, and Deadline. The data is split into two sections: 'Bench' and 'Big Machine'.

WO Number	Schedule Ref	Work Centre	Process	Employee	Product	Qty	Predicted Start Time	Minutes	Deadline
010119	Schedule 1	Bench	Bash it	Gary	1114 (1) MASTERIC CDM-TD 70...	2	9 Dec 20 09:00	0	
010123	Schedule 1	Bench	Look in Admiration	Terry	2020-B2 Tyre for Bike wheel (Sta...	1	21 Dec 20 09:00	0	
010123	Schedule 1	Bench	Bash it	Gary	2020-B2 Tyre for Bike wheel (Sta...	1	21 Dec 20 09:25	83	
010119	Schedule 1	Big Machine	Look in Admiration	Terry	1114 (1) MASTERIC CDM-TD 70...	2	9 Dec 20 09:25	0	

Printed : 4 Records

For example, reporting via Work Centre loads data showing which works orders, processes and employees are expected to occupy each work centre and when. This helps assess work volumes in different areas of a factory, or help identify production bottlenecks.



The screenshot shows the 'Stock List' report in SQLWorks, organized by 'Employee'. The table has columns: WO Number, Schedule Ref, Work Centre, Process, Employee, Product, Qty, Predicted Start Time, Minutes, and Deadline. The data is split into two sections: 'Gary' and 'Terry'.

WO Number	Schedule Ref	Work Centre	Process	Employee	Product	Qty	Predicted Start Time	Minutes	Deadline
010123	Schedule 1	Bench	Bash it	Gary	2020-B2 Tyre for Bike wheel (Sta...	1	21 Dec 20 09:25	83	
010123	Schedule 1	Bench	Look in Admiration	Terry	2020-B2 Tyre for Bike wheel (Sta...	1	21 Dec 20 09:00	0	

Printed : 2 Records

However, reporting via employee shows which work is expected for each staff member, what type of production is required, where and when. This may be helpful to plan staffing requirements, organise shift patterns or assess where skills training is most critical.

Overall SQLWorks' Production Planning gives Production Managers a way to masterplan working spaces or resources, types of work and personnel for maximum control. Production Routes help structure and streamline the manufacturing process, and organise manufacturing capacity more intelligently.