

## WHEELED EXCAVATOR

# SJ150

## SJ150 Wheeled Excavator

Product Technology & Selection Manual

A 14.2-ton wheeled excavator with a 0.6 m<sup>3</sup> bucket, 92 kW Cummins diesel power, four-wheel drive, front blade and rear stabilizers.

**14,200 KG**

92 kW at 2,200 rpm • 0.6 m<sup>3</sup>



## MANUAL MAP

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## KEY PRODUCT DATA

OPERATING WEIGHT

**14,200 kg**

RATED POWER / SPEED

**92 kW at 2,200 rpm**

BUCKET CAPACITY

**0.6 m<sup>3</sup>**

Product code EXC-1785902114757699

# Technical Specifications

Core product and configuration data

OPERATING WEIGHT

14,200 kg

RATED POWER / SPEED

92 kW at 2,200 rpm

BUCKET DIGGING FORCE

115 kN

BUCKET CAPACITY

0.6 m<sup>3</sup>

| GROUP         | SPECIFICATION               | VALUE                            |
|---------------|-----------------------------|----------------------------------|
| Machine       | Operating weight            | 14,200 kg                        |
|               | Fuel tank capacity          | 220 L                            |
| Work Tool     | Bucket capacity             | 0.6 m³                           |
| Engine        | Standard engine             | Cummins diesel engine            |
|               | Rated power / speed         | 92 kW at 2,200 rpm               |
| Hydraulics    | Hydraulic system flow       | 2 × 126 L/min + 53 L/min         |
|               | Hydraulic system pressure   | 31.5 MPa                         |
|               | Hydraulic oil tank capacity | 180 L                            |
| Travel        | Maximum travel speed        | 28 km/h                          |
|               | Swing speed                 | 13–14 rpm                        |
|               | Gradeability                | ≥60%                             |
| Performance   | Bucket digging force        | 115 kN                           |
|               | Arm digging force           | 98 kN                            |
| Configuration | Travel chassis              | Four-wheel-drive wheeled chassis |
|               | Operator environment        | Enclosed operator cab            |
|               | Front support               | Front dozer blade                |
|               | Rear support                | Rear stabilizers                 |
| Work Support  | Dozer blade width           | 2,600 mm                         |

# Dimensions & Working Range

Overall dimensions and working envelope



| DIMENSION / RANGE              | VALUE    | SELECTION RELEVANCE                                               |
|--------------------------------|----------|-------------------------------------------------------------------|
| Overall length                 | 7,350 mm | Compare the overall envelope with route length and staging space. |
| Overall width                  | 2,550 mm | Compare with gates, lanes and available access width.             |
| Overall height                 | 3,150 mm | Compare with available overhead clearance.                        |
| Upper structure width          | 2,430 mm | Review upper-structure width against swing space.                 |
| Counterweight ground clearance | 1,070 mm | Review rear-body clearance against surface transitions.           |
| Minimum ground clearance       | 250 mm   | Compare with obstacles and surface changes.                       |
| Rear swing radius              | 2,400 mm | Review rear clearance within the work area.                       |
| Wheel track                    | 1,970 mm | Use with access-width and stance requirements.                    |
| Wheelbase                      | 2,650 mm | Review wheelbase against maneuvering needs.                       |
| Maximum digging height         | 7,350 mm | Compare with the required above-ground work envelope.             |
| Maximum dumping height         | 5,380 mm | Compare with the required discharge height.                       |
| Maximum digging depth          | 4,505 mm | Compare with the required excavation depth.                       |
| Maximum digging radius         | 7,505 mm | Compare with the required horizontal work envelope.               |

# Machine Overview

Complete machine profile and component details

Complementary complete views show the enclosed cab, boom-and-bucket work group, four-wheel chassis, front blade and rear stabilizers.



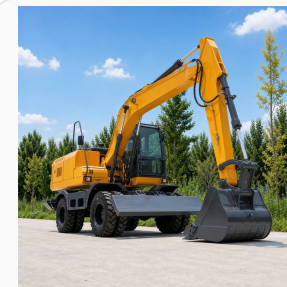
**Complete front view**

Front view showing the bucket, boom, cab and wheel stance.



**Complete left-rear view**

Left-rear view showing the upper housing, wheeled chassis and stabilizers.



**Complete right-front view**

Right-front view showing the working group, blade and wheeled chassis.

# Major Machine Assemblies

Main assemblies and their functional roles



| NO. | ASSEMBLY                     | ROLE                                                   |
|-----|------------------------------|--------------------------------------------------------|
| 01  | Main Boom Assembly           | Carries the primary lift and reach work group.         |
| 02  | Dipper Arm Assembly          | Positions the bucket through the working envelope.     |
| 03  | Bucket and Linkage           | Ground-engaging tool and pinned linkage group.         |
| 04  | Enclosed Operator Cab        | Enclosed seat and visible control environment.         |
| 05  | Upper Machinery Housing      | Rear upper housing and counterweight group.            |
| 06  | Slewing Turntable Deck       | Upper-structure support above the wheeled base.        |
| 07  | Wheeled Chassis and Supports | Four-wheel lower structure with blade and stabilizers. |

# Work Group, Hydraulics & Wheeled Chassis

Visible product components with stated technical data



## HYDRAULIC ROUTING

### Arm hydraulic lines

|                    |                    |
|--------------------|--------------------|
| SYSTEM FLOW        | 2 × 126 + 53 L/min |
| SYSTEM PRESSURE    | 31.5 MPa           |
| MAX DIGGING RADIUS | 7,505 mm           |



## WORK GROUP

### Boom cylinder

|                    |          |
|--------------------|----------|
| RATED POWER        | 92 kW    |
| MAX DIGGING HEIGHT | 7,350 mm |
| ARM FORCE          | 98 kN    |



## BUCKET GROUP

### Bucket linkage

|                   |          |
|-------------------|----------|
| BUCKET CAPACITY   | 0.6 m³   |
| BUCKET FORCE      | 115 kN   |
| MAX DIGGING DEPTH | 4,505 mm |



## WHEELED MOBILITY

### Chassis hydraulic routing

|                  |          |
|------------------|----------|
| MAX TRAVEL SPEED | 28 km/h  |
| WHEEL TRACK      | 1,970 mm |
| WHEELBASE        | 2,650 mm |

# Application Fit

Application context and selection checkpoints

**LISTED APPLICATION****Aggregate and Road-Base Loading****Capacity, force and discharge height**

Compare the 0.6 m<sup>3</sup> bucket, 115 kN digging force and 5,380 mm dumping height with the intended material and receiver.

**LISTED APPLICATION****Rural Foundation Trenching****Depth and horizontal envelope**

Compare the 4,505 mm digging depth and 7,505 mm radius with the required trench profile and access.

**LISTED APPLICATION****Municipal Storm-Drain Excavation****Access and excavation fit**

Review overall width, digging depth and bucket capacity against corridor and excavation requirements.

**LISTED APPLICATION****Riverbank Slope Shaping****Reach, clearance and support**

Review reach, ground clearance and wheeled support configuration against the intended bank profile and site conditions.

## 09 — ATTACHMENTS

# Optional Attachment Range 1

Optional work tools; confirm fitment in writing

**Clamshell Bucket**

Pick and place suitable loose material.

**Compact Digging Bucket**

Compact excavation and confined-slot work.

**Ditch Cleaning Bucket**

Shape and clean suitable drainage channels.

**Earth Auger**

Drill suitable holes in compatible ground.

**Hydraulic Breaker**

Break suitable concrete or rock material.

**Hydraulic Quick Coupler**

Hydraulic coupling interface for selected work tools.

**Hydraulic Thumb**

Retain suitable irregular material against a bucket.

**Hydraulic Tilt Bucket**

Controlled grading with a tilting bucket form.

**Log Grapple**

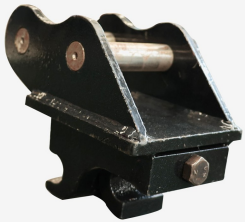
Grip and place suitable logs or irregular material.

Confirm mounting geometry, mass and hydraulic requirements before an attachment is included in the written order.

## 10 — ATTACHMENTS

# Optional Attachment Range 2

Optional work tools; confirm fitment in writing



**Mechanical Quick Coupler**

Mechanical coupling interface for selected work tools.



**Mechanical Thumb**

Retain suitable material against a paired bucket.



**Narrow Digging Bucket**

Narrow trench and slot excavation.



**Pallet Forks**

Handle suitable palletized material for the selected task.



**Rake Attachment**

Gather and sort suitable surface material.



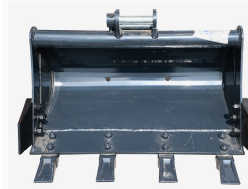
**Ripper Attachment**

Loosen suitable compacted ground before excavation.



**Screening Bucket**

Separate suitable loose material by the selected screen form.



**Toothed Digging Bucket**

General excavation with a toothed ground-engaging edge.

Confirm mounting geometry, mass and hydraulic requirements before an attachment is included in the written order.

# Attachment Selection Guide

Choose by task, then verify interface requirements

| ATTACHMENT               | PRIMARY TASK                                                  | VERIFY                                                                   |
|--------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------|
| Clamshell Bucket         | Pick and place suitable loose material.                       | Mounting geometry; hydraulic demand; written order scope                 |
| Compact Digging Bucket   | Compact excavation and confined-slot work.                    | Bucket geometry; mounting interface; written order scope                 |
| Ditch Cleaning Bucket    | Shape and clean suitable drainage channels.                   | Width; edge profile; mounting interface; written order scope             |
| Earth Auger              | Drill suitable holes in compatible ground.                    | Drive interface; diameter; ground condition; written order scope         |
| Hydraulic Breaker        | Break suitable concrete or rock material.                     | Hydraulic demand; mounting interface; hose scope                         |
| Hydraulic Quick Coupler  | Hydraulic coupling interface for selected work tools.         | Pin geometry; locking format; hydraulic circuit; written order scope     |
| Hydraulic Thumb          | Retain suitable irregular material against a bucket.          | Mounting; hydraulic interface; bucket pairing; written order scope       |
| Hydraulic Tilt Bucket    | Controlled grading with a tilting bucket form.                | Tilt circuit; width; mounting interface; written order scope             |
| Log Grapple              | Grip and place suitable logs or irregular material.           | Hydraulic interface; mounting geometry; task limits; written order scope |
| Mechanical Quick Coupler | Mechanical coupling interface for selected work tools.        | Pin geometry; locking format; written order scope                        |
| Mechanical Thumb         | Retain suitable material against a paired bucket.             | Mounting geometry; bucket pairing; written order scope                   |
| Narrow Digging Bucket    | Narrow trench and slot excavation.                            | Bucket width; mounting interface; written order scope                    |
| Pallet Forks             | Handle suitable palletized material for the selected task.    | Rated load data; load centre; interface; written order scope             |
| Rake Attachment          | Gather and sort suitable surface material.                    | Mounting geometry; task material; written order scope                    |
| Ripper Attachment        | Loosen suitable compacted ground before excavation.           | Mounting geometry; ground condition; written order scope                 |
| Screening Bucket         | Separate suitable loose material by the selected screen form. | Screen form; mounting interface; material; hydraulic demand              |
| Toothed Digging Bucket   | General excavation with a toothed ground-engaging edge.       | Bucket geometry; mounting interface; written order scope                 |

**SELECTION RULE** Define task, interface, hydraulic demand and intended configuration before order confirmation.

# Selection Summary

A practical product-configuration checklist

| DECISION FACTOR      | PRODUCT BASIS                          | USE IN SELECTION                                                  |
|----------------------|----------------------------------------|-------------------------------------------------------------------|
| Machine and bucket   | 14,200 kg; 0.6 m³                      | Compare stated machine size and bucket capacity with task demand. |
| Engine output        | Cummins diesel; 92 kW at 2,200 rpm     | Review stated power basis for the intended duty.                  |
| Hydraulic basis      | 2 × 126 + 53 L/min; 31.5 MPa           | Use the stated flow and pressure in configuration review.         |
| Overall envelope     | 7,350 × 2,550 × 3,150 mm               | Compare with routes, gates, staging and overhead clearance.       |
| Working range        | 4,505 / 7,505 / 7,350 / 5,380 mm       | Compare depth, radius, height and dumping height with the task.   |
| Mobility and support | 28 km/h; front blade; rear stabilizers | Review site mobility and support configuration.                   |



## CONFIGURE IN FOUR DECISIONS

- 01

Check access

Compare the complete machine envelope and turning geometry with the intended route and work area.
- 02

Check work range

Review depth, radius, height and dumping height against the required work envelope.
- 03

Check output

Review engine, hydraulic, bucket and force data against the intended duty.
- 04

Confirm work tools

Confirm mounting, hydraulic demand and written order scope for every selected attachment.

## WHY SELECT SJ150

- 1

Machine, engine and bucket data provide a direct technical comparison basis.
- 2

Verified dimensions and working-range values support site screening.
- 3

Four product application scenes provide task-specific visual context.
- 4

Seventeen listed attachment forms can be screened before interface and order confirmation.