

MINIATURE CRAWLER EXCAVATOR

GW25

Miniature crawler excavator

Product Technology & Selection Manual

A 2.2-ton backhoe-type mini crawler excavator with a Yanmar 3TNV80F engine, 15.2 kW rated power, a 0.068 m³ bucket and rubber-track undercarriage.

2.2 TONS

15.2 kW • 0.068 m³



MANUAL MAP

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KEY PRODUCT DATA

OPERATING WEIGHT

2.2 tons

RATED POWER

15.2 kW

BUCKET CAPACITY

0.068 m³

Product code EXC-1786005937936023

Technical Specifications 1

Core product and configuration data

OPERATING WEIGHT

2.2 tons

RATED POWER

15.2 kW

BUCKET CAPACITY

0.068 m³

MAXIMUM DIGGING DEPTH

2,410 mm

GROUP	SPECIFICATION	VALUE
Machine	Operating weight	2.2 tons
	Product type	Backhoe-type mini crawler excavator
Engine	Engine brand	Yanmar
	Engine model	3TNV80F
	Rated power	15.2 kW
	Rated speed	2,500 rpm
	Engine displacement	1.267 L
Operator Station	Operator station	Roofed open operator station
Travel	Track type	Rubber track
	Travel speed	2–3.8 km/h
	Swing speed	9.5 rpm
	Gradeability	30°

Technical Specifications 2

Core product and configuration data

OPERATING WEIGHT

2.2 tons

RATED POWER

15.2 kW

BUCKET CAPACITY

0.068 m³

MAXIMUM DIGGING DEPTH

2,410 mm

GROUP	SPECIFICATION	VALUE
Performance	Bucket digging force	20 kN
	Arm digging force	13.5 kN
	Maximum tractive force	23 kN
Undercarriage	Ground contact pressure	26.5 kPa
	Track specification	230 × 48 × 82
Hydraulics	Hydraulic working pressure	24.5 MPa
	Hydraulic flow rate	70 L/min
Fluid Capacity	Fuel tank capacity	20 L
	Hydraulic oil tank capacity	18 L
Work Tool	Bucket capacity	0.068 m³
	Working arrangement	Backhoe
Structure	Visible assemblies	Bucket and linkage; dipper arm; boom; hydraulic cylinders and hoses; open operator station; upper counterweight body; swing base

Dimensions & Working Range

Overall dimensions and working envelope



DIMENSION / RANGE	VALUE	SELECTION RELEVANCE
Transportation length	4,100 mm	Check carrier length, access route and storage footprint.
Overall height	2,440 mm	Check overhead clearance and storage access.
Maximum digging depth	2,410 mm	Compare with the required excavation depth.
Maximum digging radius	4,400 mm	Compare with the required overall reach.
Maximum digging radius at ground	4,520 mm	Compare with the required reach at ground level.
Maximum digging height	4,190 mm	Compare with the required above-ground work envelope.
Maximum unloading height	2,880 mm	Compare with the intended discharge or placement height.
Maximum vertical digging depth	1,930 mm	Compare with vertical-face excavation requirements.
Minimum turning radius	2,130 mm	Assess space required for upper-structure movement.
Maximum blade lift height	260 mm	Compare blade lift with grading and clearance needs.
Maximum blade digging depth	300 mm	Compare blade penetration with site-leveling needs.
Boom left swing angle	65°	Assess left-offset reach against site geometry.
Boom right swing angle	50°	Assess right-offset reach against site geometry.

06 — MACHINE OVERVIEW

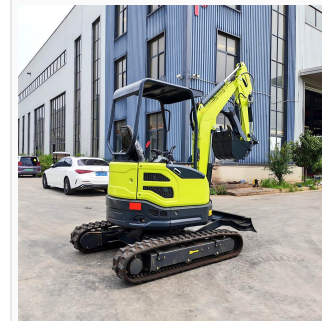
Machine Overview

Complete machine profile and alternate views

Multi-angle views show the backhoe work group, roofed open operator station, upper body, front blade and rubber-track undercarriage.

**Complete right-front view**

Opposite-side view of the blade with boom and crawler base.

**Complete left-rear view**

Rear upper body with station and crawler base shown together.

Machine Architecture

Main assemblies and their functional roles



NO.	ASSEMBLY	ROLE
01	Bucket and linkage	Ground-engaging work tool and linkage at the end of the front group.
02	Dipper arm	Connects the bucket linkage to the boom assembly.
03	Boom	Primary front-group member supporting reach and lift geometry.
04	Hydraulic cylinders and hoses	Visible actuation components serving the front work group.
05	Open operator station	Roofed open station with seat and hand-control interfaces.
06	Upper counterweight body	Rear upper-body enclosure around the power-unit area.
07	Swing base	Interface between the upper structure and crawler undercarriage.

Machine Structure & Systems

Visible assemblies and customer-relevant interface details



FRONT WORK GROUP

Boom, dipper and bucket linkage

The visible front group combines the boom, dipper arm, hydraulic actuation and backhoe bucket linkage.



CRAWLER BASE

Rubber-track undercarriage

The crawler-base detail shows the rubber track, front blade connection and upper-to-lower structure relationship.



OPERATOR ENVIRONMENT

Roofed open operator station

The station detail shows the seat, hand-control area, access opening and roofed open frame arrangement.



UPPER AND FRONT SUPPORT

Rear body and dozer blade

The detail shows the rear upper-body enclosure, crawler-base profile and front blade assembly in one view.

Application Fit

Application context and selection checkpoints



DRAINAGE	
Clean drainage trenching	
DIGGING DEPTH	2,410 mm
GROUND REACH	4,520 mm
BUCKET CAPACITY	0.068 m³



LANDSCAPE	
Landscape soil shaping	
BUCKET FORCE	20 kN
BUCKET CAPACITY	0.068 m³
TRACK TYPE	Rubber track



UTILITY	
Utility corridor excavation	
TRANSPORT LENGTH	4,100 mm
OVERALL HEIGHT	2,440 mm
TURNING RADIUS	2,130 mm minimum



FOUNDATION	
Foundation edge excavation	
LEFT BOOM SWING	65°
RIGHT BOOM SWING	50°
VERTICAL DEPTH	1,930 mm

Selection Summary

A practical product-configuration checklist

DECISION FACTOR	PRODUCT BASIS	USE IN SELECTION
Machine class	2.2-ton operating weight	Compare machine class with the intended task and supporting ground.
Transport envelope	4,100 mm length; 2,440 mm height	Check carrier, storage and access-route limits.
Working range	2,410 mm depth; 4,520 mm ground reach	Compare excavation depth and ground-level reach with the task geometry.
Power baseline	Yanmar 3TNV80F; 15.2 kW at 2,500 rpm	Use engine model, output and rated speed as the power baseline.
Hydraulic baseline	24.5 MPa; 70 L/min	Compare the stated system pressure and flow with project requirements.
Bucket baseline	0.068 m³; 20 kN bucket force	Compare bucket capacity and digging force with material and task demand.
Mobility	Rubber track; 2–3.8 km/h	Compare travel arrangement and speed range with site movement needs.
Application fit	Drainage, landscape, utility and foundation-edge work	Match working range and machine envelope with the intended application context.



CONFIGURE IN FOUR DECISIONS

- 01

Access check
Verify the 4,100 mm transport length, 2,440 mm height and carrier limits.
- 02

Task envelope
Match digging depth, ground reach, unloading height and boom offset with the work geometry.
- 03

Power and hydraulics
Use the 15.2 kW engine rating, 24.5 MPa pressure and 70 L/min flow as comparison points.
- 04

Work-tool baseline
Compare the 0.068 m³ backhoe bucket and stated digging forces with the task.

WHY SELECT GW25

- 1

The 2.2-ton crawler platform combines rubber tracks with a 23 kN maximum tractive force.
- 2

The Yanmar 3TNV80F engine is rated at 15.2 kW at 2,500 rpm.
- 3

A 2,410 mm maximum digging depth and 4,520 mm ground-level reach define the excavation envelope.
- 4

The backhoe configuration uses a 0.068 m³ bucket with 20 kN stated bucket digging force.