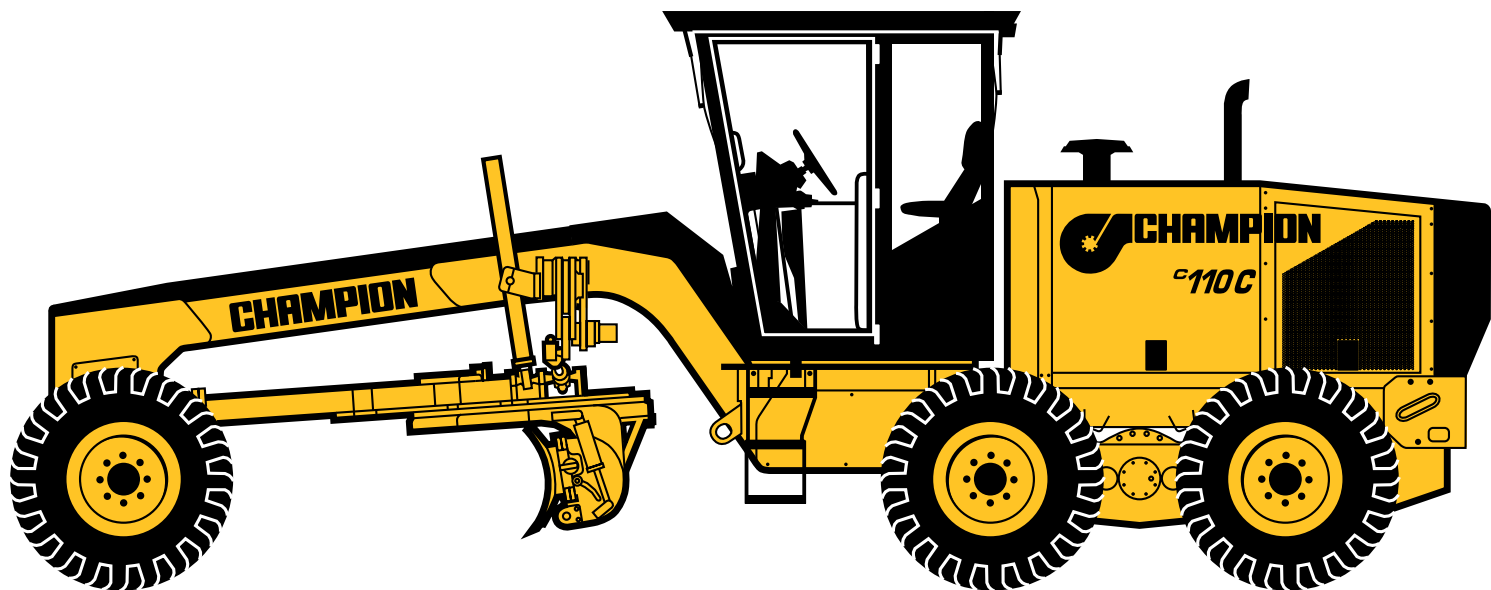


C110C



PRODUCTION CLASS MOTOR GRADERS

KEY FEATURES:

- Low emission, high efficiency Cummins diesel engine
- Funk DF150 Fully Sequential direct drive powershift transmission
- Fully enclosed ROPS/FOPS cab
- Moveable Blade Control System
- Load-sensing, closed center hydraulic system
- Fully-adjustable, low-effort controls
- Full front and rear frame sections for all attachment applications
- Single lever electronic "bump shift" transmission controller with last gear memory
- Hydraulically Boosted Dual Braking System with reserve power assist
- Heavy-duty lock/unlock differential
- 12' (3 658 mm) moldboard
- Full range of front and rear mounted attachments

MODEL	C110C
Configuration	Articulated Frame
Engine	Cummins QSB6.7
Output (SAE J1349)	120 hp (89 kW)
Operating Weight	23,500 lb (10 659 kg)



OPERATING WEIGHTS

C110 C

Total 23,500 lb (10 659 kg)



ENGINE DATA

Make/Model..... Tier 3 Cummins QSB6.7
Type4-Cycle, Turbocharged
No. of cylinders.....In Line 6
Displacement.....408 cu. in. (6,7 L)
Horsepower
@ 2200 RPM 120 hp (89 kW)
Torque
@ 1450 RPM 431 lb.ft (585 N.m)

Engine equipped with a two stage, dual element, dry type air cleaner with evacuator and electronic restriction indicator. 24 volt starting and electrical system. Two heavy duty 12 volt maintenance-free batteries. System includes master battery disconnect.



TRANSMISSION

Make/Model..... Funk DF150
Fully sequential, direct drive, powershift transmission. Engine cannot be started if transmission is in gear. Single lever transmission controller provides electronic shifting with last gear memory. Clutch is not required during shifting. Equipped with inching pedal. The flywheel mounted, multi-disc master clutch is oil-cooled for long life. Ground speeds at 2200 RPM with standard tires:

Forward		Reverse	
Gears	mph km/h	Gears	mph km/h
1	.....2 3,2	1	.....2 3,2
2	.....3 4,8		
3	.....5 8	2	.....5 8
4	.....7 ... 11,3		
5	.....10 .. 16,1	3	.....10 .. 16,1
6	.....14 .. 22,5		
7	.....20 .. 32,2	4	.....20 .. 32,2
8	.....27 .. 43,5		

Transmission guard is standard equipment.



DIFFERENTIAL / FINAL DRIVE

Make NAF Planetary Bogie Axle
Single Reduction final drive with operator controlled lock/unlock differential



TANDEM

NAF Tandems are gear driven providing a long lasting mechanism that withstands severe stress caused by load-shocks better than conventional chain drive systems.

Tandem oscillation±15°
Center to center on tires is 60.6" (1 540 mm).
With longer center distances, tandems can cross uneven ground without affecting grade while allowing for larger tires (optional) depending upon the application.



BRAKES

Service Brakes..... Foot Operated

Fade resistant, hydraulically actuated, oil disc service brakes located at the four (4) tandem wheels are self-adjusting, fully sealed and maintenance-free. System features cross-over dual braking circuits for even braking on both sides of the grader. Includes reserve power assist and operator warning system (visual and audible).

Parking Brake:
Automatically engages when engine is turned off. Operator to manually select on/off while engine is running. Grader cannot be moved while park brake is engaged. Brake is mounted on Differential Input Shaft.



FRONT AXLE

Type: One piece Tubular Frame design for maximum strength. Oscillation on single 2" (51 mm) diameter center pivot pin.
Wheel lean 20° right and left
Oscillation 20° up and down
Ground clearance..... 23" (584 mm)



STEERING

Hydraulic power front steering incorporating two steering cylinders with optional supplemental steering in event of loss of engine power.



FRAME

Full front and rear frame sections.

Front: Single tubular axle frame with internal gussets and overlapping plate provides maximum strength at all sections. Lowered nose plate and tapered design provide maximum forward visibility.

Rear: Full perimeter welded frame permits modular powertrain mounting for ease of servicing and simplifies attachment mounting.

Standard rear attachment brackets included.



CIRCLE ASSEMBLY

Hardened steel circle, with teeth cut on inside. The circle is held positively in place by 4 adjustable clamp and guide shoes providing optimum circle support and load distribution. A combination of metal wear surfaces and synthetic bearing material provide the perfect combination of long life and easy maintenance. Circle is capable of 360 degree rotation using high torque gear box.

Circle diameter..... 54" (1 372 mm)



DRAWBAR

Champion's innovative "Y" style drawbar incorporates the best practices from traditional drawbar designs. The forward section comes from the "T" style which provides a narrow but strong section from the pull ball to drawbar pad. The rear section comes from an "A" frame design which provides more support over the drawbar pad. Together they provide a strong robust drawbar with maximum support to the circle while still maintaining maximum visibility to the front axle.



MOLDBOARD

Standard moldboard with replaceable end bits
..... 12' x 24" x 5/8" thick
(3 658 mm x 610 mm x 16 mm)

Option

..... 14' x 24" x 5/8" thick
(4 267 mm x 610 mm x 16 mm)

Slide rails supported by replaceable steel and synthetic bearing material.



WHEELS & TIRES (Standard Equipment)

Standard tires..... 13 x 24

Options

Tires 15.5 x 25

Tires 17.5 x 25



BLADE RANGE: Moveable Blade Control System

Maximum bank slope angle
..... 90 degrees L and R

Superior blade mobility permits steep ditch cutting angles and back sloping outside overall machine width.



ARTICULATION

Twin 3.5" (89 mm) hydraulic cylinders articulated frame.

Articulation - left/right 20°



CAB & CONTROLS



All control switches are grouped together and easily accessible from the right hand control console.

Industry standard short throw, low effort controls are located on the fully adjustable steering pedestal.

LCD Monitor located in steering pedestal allows instant readings of fuel level, engine oil pressure, coolant temperature, volt meter, transmission temperature, and gear selection as well as diagnostic capabilities including all system pressures.

High capacity HVAC system provides heat, air conditioning, and window defrost through fully adjustable vents located in lower, mid, and upper areas of the cab.

Fully adjustable suspension seat with optional head and arm rest.

Front and Rear wipers and washers with optional lower front wiper/washers.

AM/FM with CD Player and remote available.

All Champion cabs are designed and tested to meet or exceed SAE specifications for ROPS and FOPS Safety.



CAPACITIES

	U.S.Gal.	Litres
Fuel tank.....	48	182
Hydraulic.....	25	95
Engine oil.....	3.75	14



LOAD SENSING HYDRAULICS

Closed center hydraulic system senses load requirements and maintains system pressure 3000 psi (207 Bar) above load pressure. When hydraulic pressure is not required, system pressure is only 330 psi (23 Bar).

System features industry standard control arrangement or optional right hand blade control setup for one hand operation of the blade up and down. Lever lengths are designed to provide low effort "feather ability" while still maintaining a short throw for faster response and less movement. Controls are mounted on a fully adjustable steering pedestal.

DIMENSIONS

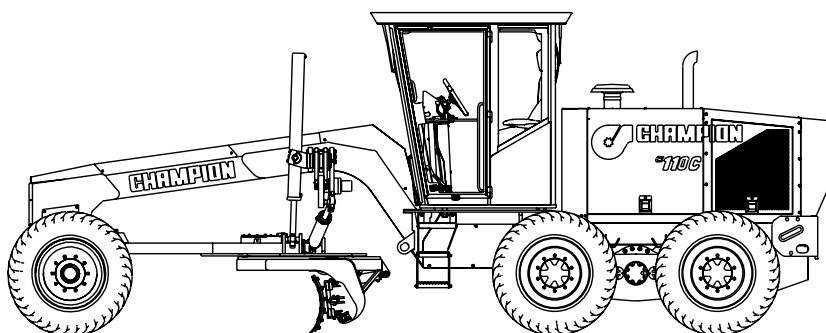
A Overall length..... 25'6" (7 774 mm)

B Overall height..... 10' (3 053 mm)

C Wheelbase..... 17'7" (5 354 mm)

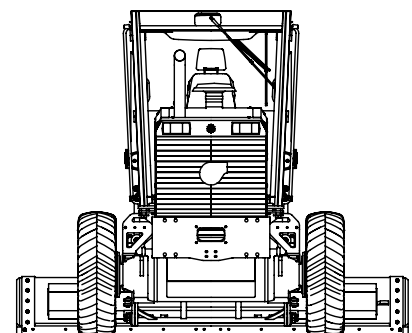
D Bladebase..... 7'5" (2 248 mm)

E Overall width 8'2" (2 486 mm)



D - BLADEBASE

B
O
V
E
R
A
L
L
H
E
I
G
H
T



E - OVERALL WIDTH

AUTOMATIC BLADE CONTROL SYSTEMS

All Champion Motor Graders are compatible with the latest in Automatic Blade Control Technology.

Brackets Package

Moving an existing ABS system to a new Champion Grader, a Bracket Package can be designed and installed during the fabrication process eliminating need for aftermarket brackets and unnecessary welding at the dealer or onsite, making installation of existing system cleaner and faster.

Hydraulics Package

Installing a new ABS system? Factory installation of a MOBA Valve Package at time of fabrication, will eliminate need to open machine's hydraulic system, greatly reducing the opportunity of accidental contamination. Combine this with the Brackets Package to just "plug and play" your existing or new Automatic Blade Control System.

Factory Installed Systems

Champion can factory install most any brand of ABS system at the time of the new grader order. Champion works closely with ABS manufacturers to ensure a quality installation.

STANDARD FEATURES

Air Conditioner
Cab Heater
Operator controlled, lock/unlock differential final drive
4-wheel, cross-over dual braking system with reserve power assist
Operator activated park brake with operator warning alarm and indicator
Automatic park brake engagement when engine is off
Fully sequential direct drive powershift transmission with 8 forward and 4 reverse speeds
Moveable blade control system for optimum blade mobility

- Your safety and the safety of those around you depends on using care and judgement when operating and servicing your grader. Do not operate the grader until you read and understand the warnings and instructions in the operator's manual.
- Under our policy of continuous product development and improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

STANDARD FEATURES (Continued)

Equipped with an inching pedal and a full disconnect clutch. The inching pedal provides operators with optimum inching modulation for each specific gear giving them precise control of machine's forward movement especially in finish grading or other close quarter or in tight work. At full stop, master clutch fully disconnects from transmission.
Full front and rear frame sections designed to handle stress and absorb shock loads from front and rear mounted attachments
Innovative "Y" style drawbar to provide maximum strength and visibility
Combination of metal and synthetic bearing materials which provide long life and easy maintenance for circle and moldboard adjustments
Isolation-mounted cab, transmission and engine for reduced noise and vibration
Adjustable steering control pedestal with tilt head for maximum operator comfort
ROPS/FOPS enclosed cab
Gauge package incorporated in LCD monitor
Load-sensing, closed-center hydraulic system with short-throw, low effort control levers. Hydraulically operated blade lift, circle turn, moldboard slide and tilt, circle shift and wheel lean functions
Feathering-type controls for precise blade adjustments
Hinged radiator guard for easy trash clean out
Back-up lights
Back-up alarm
Painted high gloss Champion yellow and grey
Lockable tool box with storage space for scarifier shanks
Engine side panels c/w locks
Front and rear wipers with washers
Right and left blade float controls (N/A with blade lift lock valves)
Forward facing high/low beam headlights with marker lights and turn signals
Rear marker, brake, and reverse lights
Suspension seat
6 points for trailer tie down

OPTIONAL EQUIPMENT

Cab Options

AM/FM with CD and remote stereo system with 2 speakers
Lower front wipers and washers (2)
Arm and head rest
Supplemental steering (power assist)

Engine

Engine block heater
Engine air pre-cleaner
Either cold start aid or grid heater

Moldboard

Blade lift lock valves
Electric blade float for use with lock valves
Moldboard
14' x 24" x 5/8"
(4 267 mm x 610 mm x 16 mm)
Moldboard extensions
right and left – 1' (305 mm) each

Lights

Work Light Package – Includes 2 forward and 2 rear facing flood lights
Blade work lights (2)
Strobe or revolving beacon
Front mounted plow lights – high mounted or low mounted

ATTACHMENTS

Automatic Blade Control
Compaction Roller
Counter Weight
Dozer Blade 8' (2 438 mm)
Front Mounted "V" Scarifier
Rear Mounted Rippifier
Windrow Eliminator



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