

Built for Maximum
Power, Performance
and Reliability

S E R I E S V I

Champion



CHAMPION®

A Company within the Volvo Construction Equipment Group

Courtesy of Machine Market

Rely on Champion for Every Job

Since we put the first graders on the road in 1875, Champion has been building and backing the toughest machines on the job site. With our new Series VI, we have combined our extensive experience in motor graders with today's advanced design technology to build the most productive and reliable graders in the industry.

Every detail on Series VI graders – from the advanced cab design, to job-matched transmission speeds, to a power-to-weight ratio that maximizes blade down pressure and blade pull – has been optimized to boost your productivity, improve versatility and deliver superior operator comfort.

The Champion team stands behind every grader we build with a worldwide parts and service support network more than 3,000 people strong – qualified grader professionals who have earned the reputation of being “the grader experts”.

Whether you're building a road, cutting a ditch, fine grading, or cleaning up after a snowstorm – there's a Series VI grader for every job.

700 Models - Every Environment, Every Job

Rugged and dependable, you can find our tandem drive 700 Models hard at work around the world on the most demanding assignments. 700 Models are popular with private contractors, road builders, logging companies and municipal governments for their power, blade control, speed, durability and versatility. With an unmatched range of standard features and options, there's a 700 Model built for your application.

700 AWD Models - Precise, Powerful – All Wheel Drive

Series VI 700 AWD Models feature the industry's most advanced and reliable all-wheel-drive system for more productive grading in any working conditions. Not only does this system distribute power more evenly than conventional systems, Champion's revolutionary “Creep Mode” allows you to disengage the rear wheels and operate in front-wheel-drive for extremely precise, low-speed fine grading.

Compact Models - Large Grader Features

Champion put the power and precision of an advanced hydrostatic drive to work in the most productive compact grader line in the industry. By incorporating a wide range of large grader features, Series VI Compact Models do big grader work in areas big graders can't go.



Add power and precision to any grading job with up to 7500 lbs. (3 400 kg) more blade pull and Champion's exclusive “Creep Mode” – the unique ability to switch to independent hydrostatic front-wheel-drive for fine grading.



Weight Range: 31,620 - 35,730 lb. 14 343 - 16 208 kg

Horsepower: 160 - 200 hp 119 - 149 kW



S E R I E S V I

Champion



700 MODELS



700 Models are the workhorses of job sites around the world – plowing snow, fine grading, building roads, ripping and scarifying – everything you expect from a grader, all day, every day.

Weight Range: 30,630 - 42,740 lb. 13,894 - 19,388 kg

Horsepower: 140 - 235 hp 104 - 175 kW

700_{AWD} MODELS



C O M P A C T MODELS



Compact Models offer unbeatable maneuverability, performance and productivity. With available all-wheel-drive models and 9 different attachments, Champion Compact graders are versatile enough to handle a wide range of tasks.

Weight Range: 9,420 - 15,870 lb. 4,273 - 7,205 kg

Horsepower: 80 - 110 hp 60 - 82 kW

A New Level of Productivity and Reliability

SERIES VI

Champion

1 More Power Where You Need It

Series VI graders are powered by reliable Cummins engines for superior lugging power and low emissions. Champion delivers more engine power to the ground through the industry's most efficient drivetrain, featuring our direct-drive 8400 transmission and Gearco lock/unlock final drives.

2 Superior Blade Versatility and Control

Champion's Moveable Blade Control System (MBCS) allows the operator to accurately position the blade on either side of the grader at any angle up to 90° for bank-sloping and to 21° downward for ditching – making it easy to cut the exact profile you need. With excellent lift-above-ground, deepest cut-below-ground, and the farthest reach outside the tire profile, you can cut, clean and ditch with maximum stability in the fewest possible passes.

3 A Better Place to Work

At Champion, we take pride in doing more for the operator. Series VI offers a wide range of comfort and control features that

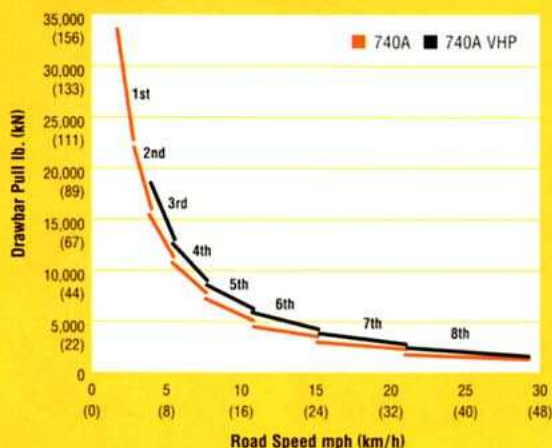
no other grader can match. Improved 360° visibility, an advanced climate control system, and the fully-adjustable steering pedestal help the operator be more productive and help reduce fatigue over long days.

4 Precise, Powerful – All Wheel Drive

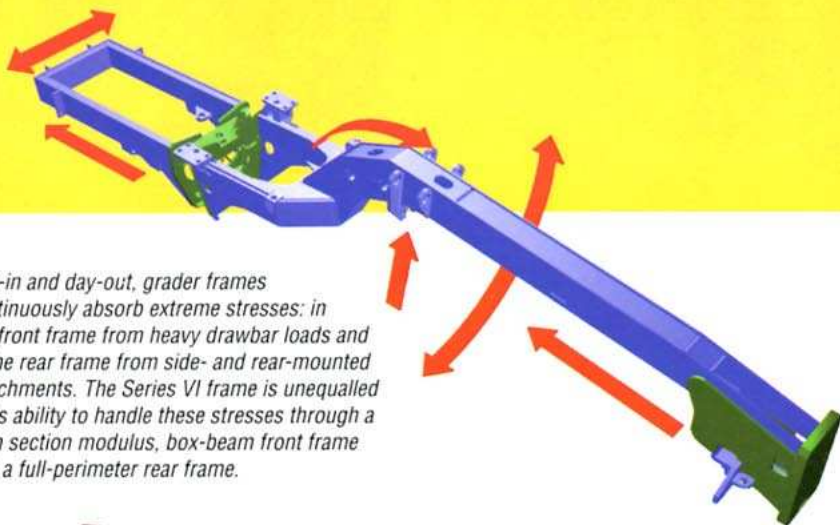
Series VI revolutionizes all-wheel-drive for motor graders with an advanced system that delivers independent hydraulic power to each front wheel for even power distribution through turns and in terrain where traction is an issue. Only Series VI all-wheel-drive gives you the ability to handle every task, from high-speed snow plowing to hydrostatic Creep Mode for low-speed fine grading applications.



740A VHP Drawbar Pull



VHP Models deliver a substantial increase in drawbar pull in gears 3 through 8.



Day-in and day-out, grader frames continuously absorb extreme stresses: in the front frame from heavy drawbar loads and in the rear frame from side- and rear-mounted attachments. The Series VI frame is unequalled in its ability to handle these stresses through a high section modulus, box-beam front frame and a full-perimeter rear frame.



The Series VI cab is designed with the operator in mind, with a wide range of standard features and options that let you customize your environment for maximum productivity and operator comfort.

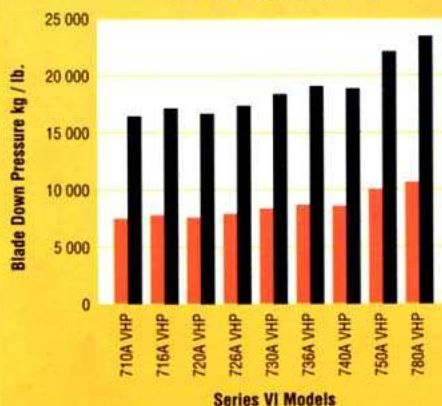


Series VI puts more power behind the blade by balancing front-to-rear weight ratios with the longest blade base in the industry.



Champion's revolutionary all-wheel-drive system sets a new standard – it's both powerful enough for high-speed snow clearing and precise enough to meet the fine grading tolerances that road builders demand.

Blade Down Pressure



All Champion graders deliver superior cutting capability as a result of optimum weight distribution and a long blade base.

■ kg ■ lb.

More Power Where You Need It

S E R I E S V I



With the most advanced and efficient powertrain in the industry, Champion Series VI graders deliver more engine power to the ground – adding blade pull, speed and performance to every grading job.

- Cummins high-torque engines, available in either Variable Horsepower or standard power models, deliver up to 53% net torque rise for maximum high-load performance.
- Rugged and reliable, Champion 8400 transmissions have been proven in over 10 million hours of operation. Evenly proportioned gear ratios deliver the exact power and speed you need to match every grading job.
- Gearco lock/unlock differential final drives complete the package with simplicity and strength.

Superior Blade Pull

Champion's blade pull is legendary in motor grading. By optimizing weight placement over the drive wheels and over a long blade base, and by putting more engine power to the ground, Series VI graders offer blade pull capability that leads the industry in every weight class.

Robust and Reliable

Because you put your grader through its paces every day, you need to know you can rely on it to perform with maximum reliability. Series VI componentry has been designed to deliver thousands of hours of trouble-free operation.



Cabinet-style doors on the engine cowling make on-site maintenance convenient by providing fast and easy access to all regular maintenance points.



The 8400 fully-sequential, direct-drive, powershift transmission offers eight forward and four reverse evenly-stepped speeds to match any job up to 27.9 mph (44.8 km/h).



There's no replacement for the right combination of weight and horsepower. Series VI graders offer precisely matched horsepower-to-weight ratios for maximum machine productivity in any application.



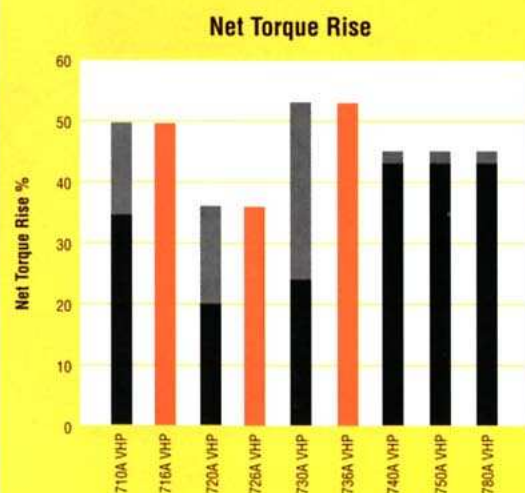
Agile and powerful, Champion Series VI Compact Models feature a rugged Sundstrand hydrostatic drive system that delivers the precise speed control and power needed for a wide variety of grading applications.

Performance Innovations

Series VI Compact Model features include industry-standard blade controls with twin-flow hydraulics, a choice of either foot- or hand-operated travel controls, and a full range of attachments. When it comes to performance no other compact grader comes even close.



Compact Models allow easy access to the powertrain for fast on-site maintenance.



Series VI 700 Models

Net torque rise – the measure of the engine's ability to sustain power under load. Series VI graders offer the highest net torque rise in the industry.

■ AWD on - All Gears
■ Gears 3-8
■ Gears 1&2



All-wheel-drive is available on three Compact Models (C66A, C76A and C86A) for added traction and control in poor conditions.

Superior Blade Control

SERIES VI
Champion

700
MODELS

No other grader gives you the blade mobility, stability or reach of Series VI graders. Three systems – the MBCS (Moveable Blade Control System), Circle Turn System, and Blade Lift System – work together to help you achieve the required profile and reduce the number of passes required to handle material accurately and efficiently.

Mobility and Stability

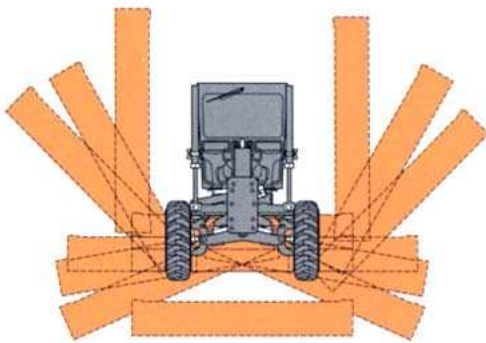
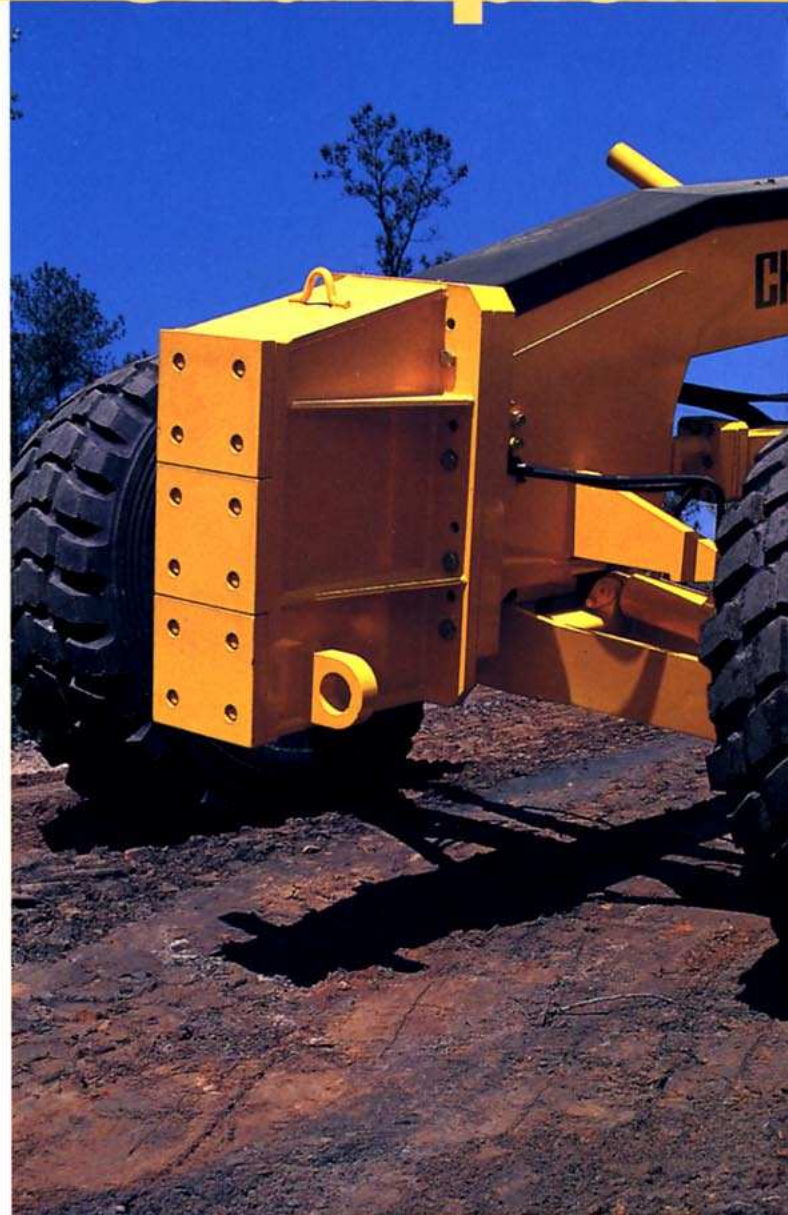
Champion's MBCS allows the operator to set the blade at any angle up to a full 90° vertically on both sides of the grader, as well as a 21° downward angle for ditch cutting. You can cut a 2:1 bank slope with the moldboard completely outside of the tire profile. The blade can be set safely and easily at any required angle simply by repositioning the MBCS lockbar to any one of seven available positions.

For superior blade stability, the parallel Blade Lift cylinders on Series VI have the widest stance in the industry to reduce end-to-end moldboard corrections when fine grading.

The circle turn pinions are driven by dual direct-acting hydraulic cylinders for maximum turning power. These two points of leverage allow the operator to hold even the heaviest load for increased pushing capability. The Circle Turn System is protected by an overload relief valve.

Precise Controls

Champion's blade control system receives hydraulic power through a load-sensing, closed-center hydraulic system with feathering capability for precise blade handling.



Champion's MBCS system gives you the flexibility to position the blade at any angle you need for shouldering, slope work and ditch cleaning – up to 90° upward and 21° downward.



Series VI graders boast the industry's longest blade reach outside the tire profile, reducing the number of passes you need to make and increasing your productivity.



Duramide™ bearing material eliminates steel-to-steel contact and reduces the need for Circle Turn lubrication and adjustment. It has a service life of more than 5,000 hours and is simple and cost-effective to replace.



Series VI Compact Models feature a

simple, robust, trunnion-mounted Blade Lift System, with a precise, dual-cylinder, direct-acting Circle Turn System. Hydraulic control features include detent-style float valves and twin-flow hydraulics.

The result is a level of blade mobility, precision and reach that was previously unavailable on compact graders. Whether it's pushing and cutting, attachment work or exceptionally fine grading, Champion Compact Models are well-equipped to handle all types of work.



Optimum blade range and a tight turning circle allow Series VI Compact graders to complete a variety of tasks in close quarters.



1. The MBCS controls the moldboard angle relative to the ground.
2. The twin-cylinder Circle Turn System controls the rotation of the moldboard.

3. The Blade Lift System raises the moldboard to a height of 17.5" (445 mm) and lowers it to a maximum cutting depth of 33" (838 mm).



Doing more for less: by building the versatility of our large graders into our Compact Models, Series VI offers an easy-to-use alternative for a wide range of jobs and a fast return on your investment.

A Better Place to Work

SERIES VI

Champion



A grader is only as productive as the operator. For that reason, Champion takes pride in providing an operator environment that is renowned for its comfort and functionality.

When we designed the Series VI cab, we talked to customers around the world to find out what they needed in order to reduce operator fatigue and increase productivity. The result is a cab that is quieter and more comfortable, with excellent climate control, convenient operating controls and 360° visibility.

Superior Visibility

Because you operate your grader on or near public roads, in tight areas and around other equipment, we've sloped the front frame and rear cowling to open up your line of sight. The Series VI cab offers a 360° view around the grader to watch the road and attachments, a clear view down to the blade area, and an unobstructed view around the front wheels to see grade stakes.

Built for Productivity

All of the operator controls on Series VI graders are conveniently located within a 90° arc, either in the fully-adjustable steering pedestal or in the right-hand console. Added touches, like side and lower-front opening windows and an operator convenience package, put the operator's comfort first.



The pedestal features industry-standard short-throw hydraulic controls, the M4/M44 machine monitoring module, and all necessary gauges.



In the right-hand console you'll find the electrical switches, circuit breakers, climate controls, engine start and the "Smart Shifter" transmission controller – a Champion feature that allows you to customize shift patterns for faster cycle times.



The Series VI cab is available in either full height or low profile configurations, and features a new HVAC climate control system that provides superior operator comfort in all weather conditions.



With larger windows and a narrow steering pedestal, Series VI gives you a clear view of the blade and the area around the grader. This improved visibility gives you the confidence to maneuver in congested areas and to work with greater accuracy.



Because smaller jobs don't mean shorter workdays, we've designed the cab on Series VI Compact Models to be the most functional and productive in their class. Choose between a canopy and a fully-enclosed cab that offers many of the same features found in our 700 Models. Both choices include a fully-certified internal Roll Over Protective Structure (ROPS).

Compact Models also feature an adjustable pedestal and twin flow hydraulics, plus dual-lever speed and directional controls for easy operation of the hydrostatic transmission.



The control pedestal and window space on our Compact Models is similar to the design we feature on our large graders for improved comfort and visibility.



Even the largest Compact Model has a turning radius of only 16'6" (5 029 mm), providing better mobility in tight spaces for reduced cycle times and increased grading precision around tight corners.

Precise, Powerful – All Wheel Drive.

SERIES VI

Champion



700 AWD Models feature a revolutionary all-wheel-drive system that delivers maximum power with maximum precision.

Whatever your application, the system is tuned to the task. The AWD system provides even distribution of power through independent variable displacement pumps and high torque motors at each front wheel. If the traction differs on either side, this system ensures that optimum pulling power is still achieved.

Speed sensors on each front wheel control the relative front-to-rear speeds. The main AWD control features 15 levels of aggression to the front wheels.

Leading All-Wheel-Drive Innovation

Only Champion AWD graders offer you the ability to switch to Creep Mode for low-speed, fine grading applications. Creep Mode disengages the rear drive and pulls the grader in hydrostatic front-wheel drive only. This puts the power where it needs to be for fine grading, and allows the moldboard to be navigated around the tightest corners without the rear wheels "scuffing" the finished grade.

Unbeatable High Speed Operation

Only Series VI AWD works up to 20.2 mph (32,5 km/h) for optimum snow-clearing performance. This innovative AWD system is available in Models 716A VHP, 726A VHP and 736 VHP.



Infinite speed selection from 0-2.0 mph (0-3,2 km/h) – made available by our innovative Creep Mode – enables you to match your speed to the fine grading job at hand.



Series VI graders feature the industry's heaviest front end, optimizing traction up front and increasing both blade down pressure and blade pull capability.

Not only does Series VI AWD deliver up to 7,500 lb. (3 400 kg) more blade pull to your heavy applications, the low-speed Creep Mode adds extreme precision to your fine grading applications.



With a separate hydraulic pump driving an independent motor at each front wheel, Champion's unique all-wheel-drive system distributes power evenly, efficiently and reliably.



The controls for the AWD system – the AWD on/off switch, 15-position aggression setting dial, Creep Mode activation switch, and audible/visual AWD system monitoring system – are conveniently located at the operator's right hand.



Creep Mode helps you grade within the tightest tolerances in a single pass, without damage to the fine grade.



Series VI tandem drive and all-wheel-drive models deliver the industry's highest blade pull in every weight class.

Choose Your Champion

SERIES VI
Champion

Champion offers the widest range of machine sizes and grader attachments in the industry. Whether you need a maintainer for a specific task, or a reliable, all-purpose machine, there's a Series VI model that meets your needs – with a host of standard features, options and attachments no other grader company can match.

Machine Specification Chart

Use the chart below to help you choose the model you need. By taking into account your applications, terrain and climate, your dealer will put together a grader package that serves you best.



All Series VI graders are easily fitted with automatic blade control systems for fast and precise fine grading

Model	Base Weight lb. (kg)	Net Power hp (kW) @ rpm	Landscaping	Subdivision Parking Lots	Shoulder Maintenance	Road Maintenance	Road Building	Snow Removal	Forestry	Quarry
Compact	C50A	9,420 (4 273) 80 (60) @ 2500								
	C60A	11,250 (5 100) 80 (60) @ 2500								
	C66A	11,800 (5 352) 80 (60) @ 2500								
	C70A	13,050 (5 919) 80 (60) @ 2500								
	C76A	13,600 (6 169) 110 (82) @ 2500								
	C80A	15,320 (6 949) 80 (60) @ 2500								
	C86A	15,870 (7 205) 110 (82) @ 2500								
700	710A	30,630 (13 894) 140 (104) @ 2200								
	710A VHP	30,630 (13 894) 135-160 (101-119) @ 2200								
	720A	32,570 (14 775) 160 (119) @ 2200								
	720A VHP	32,570 (14 775) 170-195 (127-145) @ 2200								
	730A	34,750 (15 763) 195 (145) @ 2200								
	730A VHP	34,750 (15 763) 180-200 (134-149) @ 2200								
	740A	35,610 (16 153) 210 (157) @ 2100								
	740A VHP	35,610 (16 153) 210-235 (157-175) @ 2100								
	750A	41,000 (18 598) 210 (157) @ 2100								
	750A VHP	41,000 (18 598) 210-235 (157-175) @ 2100								
	780A	42,740 (19 388) 210 (157) @ 2100								
	780A VHP	42,740 (19 388) 210-235 (157-175) @ 2100								
700 AWD	716A VHP	31,620 (14 343) 135-160 (101-119) @ 2200								
	726A VHP	33,550 (15 218) 170-195 (127-145) @ 2200								
	736A VHP	35,730 (16 208) 180-200 (134-149) @ 2200								

700

MODELS

700AWD

MODELS

710A/710A VHP



720A/720A VHP



730A/730A VHP



740A/740A VHP



750A/750A VHP



780A/780A VHP



716A VHP



726A VHP



736A VHP



S E R
Cha

700 / 700AWD MODELS ATTACHMENTS



A-frame with integral hydraulics for front-mounted attachments.



Dozer Blade for bulk leveling, back filling and clean up.



Push Block bolts to noseplate for pushing other equipment and counterbalances the rear ripper.



"V" Plow – especially effective for breaking open snow-clogged roads.



Scarifier mounts behind front axle for improved scarifier down pressure.



Rear Snow Wings mount directly to the grader frame for snow control.



Front Snow Wings mount directly to the grader frame for snow control.



Ripper/Scarifier attaches to rear frame, for soil reclamation and preparation.










One-way Plow – specifically designed for high-speed snow dispersal.



COMPACT

MODELS

LES VI
mpion

C50A	C60A
	
C66A	C70A
	
C76A	C80A
	
	C86A
	

COMPACT MODELS ATTACHMENTS



Dozer for leveling piles and spreading material prior to blading.



"V"-scarifier for breaking up compacted soil, aggregates and hard surfaces.



Broom for rapid clean-up of intersections, aggregate removal from sealed surfaces, and final clean-up after asphaltting.



Windrow Eliminator facilitates rapid, efficient and safe shoulder maintenance in one-pass repair and spreading.



Side Dozer for clearing to the side of the machine, pushing material under guard rails and discarding extra material.



Loader: fewer machines needed for site clean-up and clearing. Load height sufficient for tandem dump truck.



Rear Ripper: rear mounted, 5 tooth; ideal for tearing up sealed surfaces and site clearing.



Dozer/Scarifier for on-site utility, ideal for construction site preparation. Tilt up scarifier teeth.



Automatic Blade Control System achieves and maintains pre-set grade and adjusts for grade changes. Ideal for site preparation.



Around the World, Around the Clock – We Support Your Grader

A construction site in Texas.

A road crew in South Africa.

A logging operation in British Columbia.

No matter where they're located, our customers know they can rely on genuine Champion Parts and Service to keep their graders running at maximum productivity day after day. Our parts availability and service expertise are second-to-none in the industry.

Champion Parts

Genuine Champion parts are manufactured to the most stringent specifications, guaranteeing compatibility, superior performance and a long service life. To make sure you never have to settle for less than the best, your local dealer carries a complete inventory of parts to ensure the fastest response.

Champion Service and Support

When you're backed by Champion, you're backed by more than 3,000 skilled parts and service people in 94 countries – together, we cover the globe. We also offer a full range of warranties and extended service plans to meet your needs.

Only by maintaining your grader with original, factory-approved Champion parts are you guaranteed reliability and performance that matches your grader's original specifications.



Champion



Champion's Electronic Data Generation and Exchange (E.D.G.E) system offers round-the-clock electronic parts ordering and up-to-the-minute order status through an on-line link between your dealer and our central parts distribution center.



Trust your on-site maintenance to the people who know your grader best. Our service technicians have the parts, the equipment and the know-how to get you up and running quickly, and keep you running day after day.



Behind every Champion dealer is a team of trained grader professionals, working to keep your graders on the job, and performing with maximum productivity.

Grader Innovation Yesterday, Today and Tomorrow

For nearly 125 years, Champion graders have been building and maintaining roads around the world – and building our reputation as the grader experts in the process.

The needs of grader owners and operators are our only focus. We've always listened to our customers, and looked for new ways to make our graders tougher, more powerful, more comfortable and more productive. We've extended and improved our line of attachments to make our graders more versatile. We've also worked to make our support organization the best in the world.

Built on Experience

Series VI graders are a combination of the most advanced design and manufacturing technologies, and our many years of grader experience. With innovations in virtually every component, Series VI graders lead the industry in reliability and performance.

Ready for the Future

To win contracts in today's competitive economy, and serve customers who are working within today's budget constraints, you have to do a lot more, a lot faster — and get it right the first time.

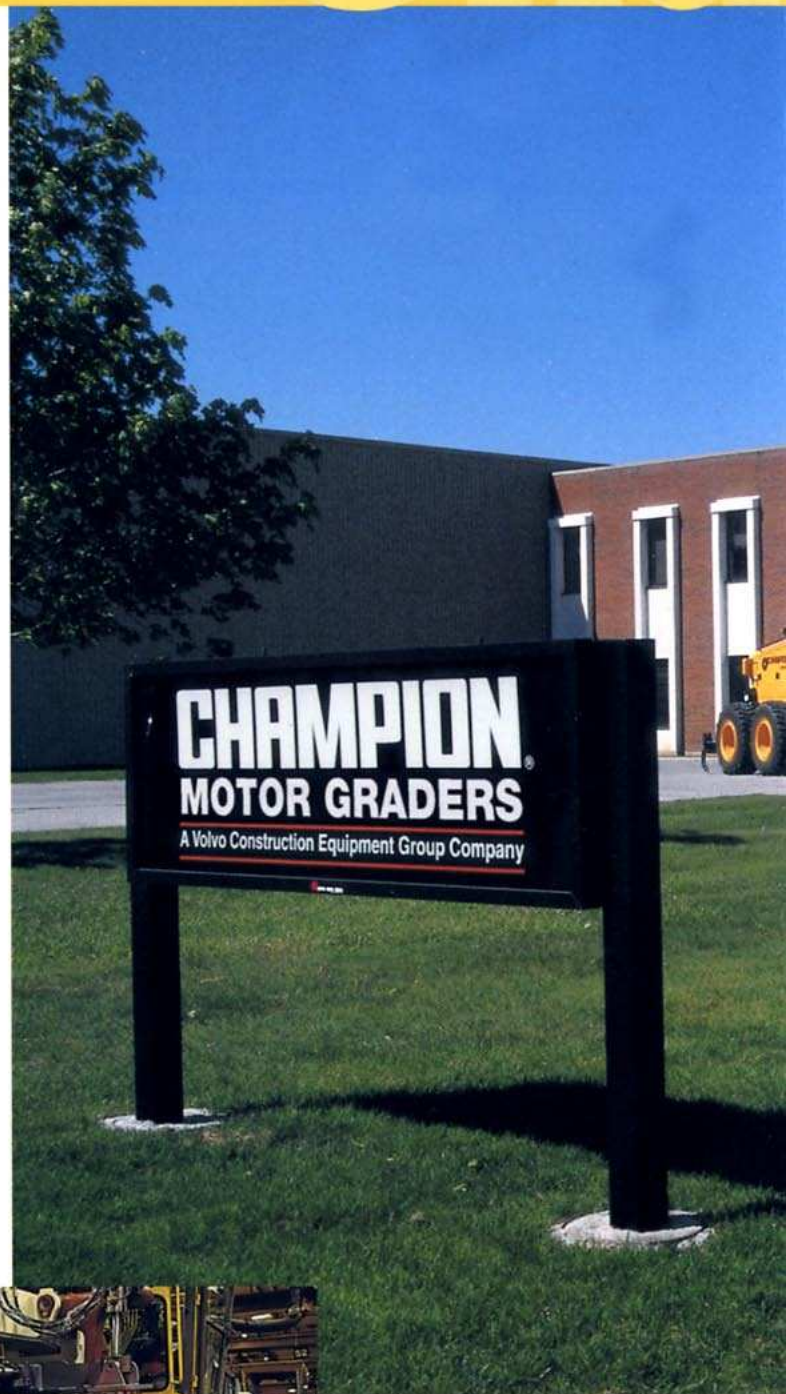
For these reasons, Champion is committed to advancing graders and grader technology, to set new benchmarks for power, performance and reliability that allow you to do your job more efficiently and cost-effectively than ever before.

For superior graders, attachments and product support, rely on Champion – the grader people.



Since 1875, Champion has been a pioneer in grader design.

- The first horse-drawn grader
- The first self-propelled grader
- And the first all-hydraulic grader
- ... were all Champions.



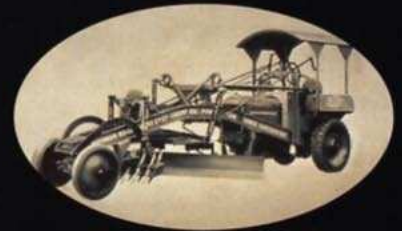
At our manufacturing center in Goderich, Ontario, Canada, we build, test and ship graders to customers all over the world, and coordinate all parts and service support.

mpion



Champion continues to invest in our people and equipment in order to maximize our manufacturing efficiency and produce the highest quality products.

Champion Grader Milestones



1928



1946



Series I
1975



Series III
1989



Series IV
1994



Series VI
1999



Technology on Human Terms

The Volvo Construction Equipment Group is one of the world's leading manufacturers of construction machines, with a product range encompassing wheel loaders, excavators, articulated haulers, motor graders and more.

The tasks they face vary considerably, but they all share one vital feature: technology which helps man to perform better, safely, efficiently and with care of the environment. We refer to it as Technology on Human Terms.

The sheer width of the product range means it is always possible to choose exactly the right machine and attachment for the job. Each machine also comes with the quality, continuity and safety which is represented by the Volvo name. The security of the

service and parts organisation. The security of always having immediate access to leading-edge research and technical development. A machine from Volvo meets the very highest demands in all kinds of jobs, under all conditions. The world over.

The Volvo Construction Equipment Group develops, manufactures and markets Volvo, Pel-Job, Champion and Samsung construction equipment. We are a Volvo company with production facilities on three continents and a market presence in over 100 countries.

For more information please visit our web site:
www.volvo.com

*Under our policy of continuous 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.*

VOLVO

Volvo Construction
Equipment Group

Ref. No. 21 1 434 1029 Am. English
Printed in Canada 1999 06-10 CHA
Volvo, Goderich S6GENE (06/99)