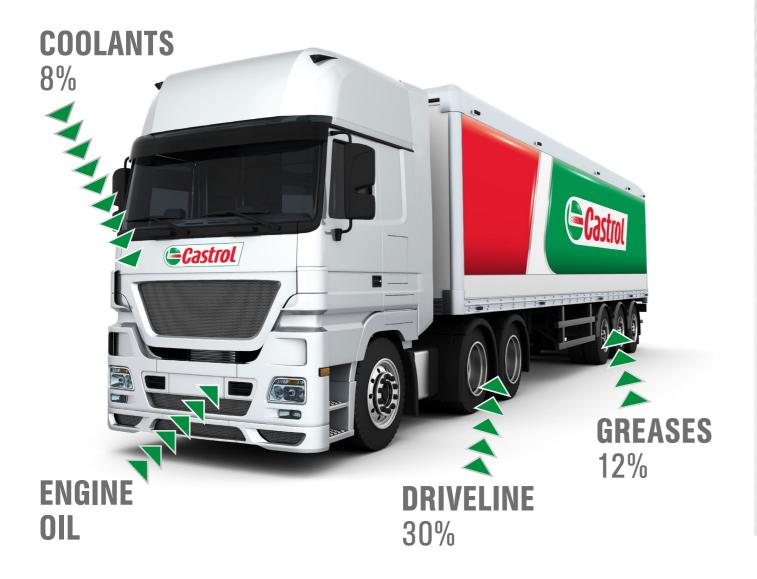
NEW CASTROL VECTON AND CASTROL CRB



IT'S MORE THAN JUST OIL. IT'S LIQUID ENGINEERING.



THE RIGHT PRODUCT OFFER FOR YOUR TRUCK



RATIO OF CV FULL FLUIDS TO ENGINE OIL 50%

For every two litres of engine oil sold, another one litre of full fluids can be sold.



At Castrol, we continuously look for new technologies and refresh our portfolio for the latest standards to be fit and ready for the future.

Our new advanced brands, Castrol VECTON and Castrol CRB, will harmonise global technology platforms and ensure you get the right product to fulfil your every need, every time.

Harmonisation further allows us to develop stronger brand differentiation.

CASTROL CRB TURBOMAX with DuraShield™ Boosters, delivering improved wear performance for long and healthy engine life, and CASTROL VECTON with System Pro Technology™, for longer useful oil life, giving you confidence in your maximum drain interval. Both are a testament to our focus on you, our customers, and your trucking businesses.

Your needs are our top priority. We understand that engine oil is an enabler to meet your business and personal goals. So, we build propositions that provide solutions to your real functional and emotional needs.

Introducing Castrol VECT N

Castrol VECTON and its unique System Pro Technology $^{\text{TM}}$ is an advanced technology that adapts to higher temperature and pressure in the engine under extreme conditions.

It's the new brand engineered by Castrol specifically for those truck owners who want to get the most out of their vehicles and out for their business. All products in the new Castrol VECTON range have been exclusively tested under extreme conditions to make sure that they can help the engine perform at its best.

Castrol VECTON technical story

Castrol VECTON and its unique System Pro Technology $^{\rm IM}$ is an advanced technology that adapts to higher temperature and pressure in the engine under extreme conditions.





Thermal oil degradation.
Reduced lubrication
leads to cavitation
and noisy operation of
engine, and malfunction
of hardware.

System Pro Technology™ incorporates its ability to limit aeration in engine oil to prevent thermal oil degradation, thereby maintaining the essential lubricating function of the oil.



Engine oil degrades from exposure to high temperature. Excess heat can lead to oxidative thickening.

System Pro Technology™ incorporates an advanced system of antioxidants coupled with synthetic base oil and adapts to the effects of increased torque and increased operating temperatures to resist oxidation for 30% longer than previous category engine oils.

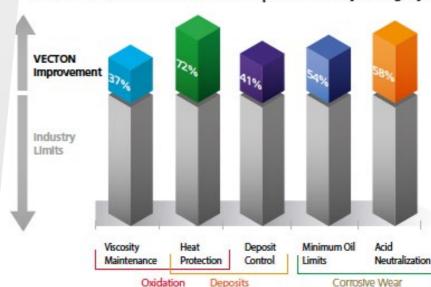


Pressure and shear forces lead to viscosity decrease. Heat and oxidation increase viscosity.

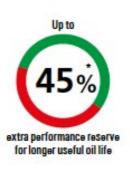
System Pro Technology™ incorporates shear stable viscosity modifiers to provide stay in grade performance through the life of the oil, always maintaining correct engine oil viscosity for extended service intervals.

Castrol VECTON gives you up to 45%* extra performance reserve

Castrol VECTON Performance Improvement by Category







Castrol VECTON with System Pro Technology™ has an extra performance reserve that fights oil breakdown by helping control oxidation, reducing deposits, neutralising harmful acids and by adapting to higher temperatures to help maintain viscosity.



In 2017, Castrol VECTON becomes the World's first certified carbon neutral commercial vehicle engine oil under the international BSI PAS 2060 standard. We have developed a campaign to step-out and drive brand advocacy as the leaders in sustainability by creating positive awareness using carbon neutral engine oil in trucks.

Help improve your company's reputation with Castrol VECTON, the world's first carbon neutral commercial vehicle engine oils. Carbon neutrality (also known as net-zero carbon footprint) refers to when the net greenhouse gas emissions of an organisation, service or product are equal to zero.

Castrol has a carbon reduction plan in place for Castrol VECTON, with unavoidable emissions offset through BP Target Neutral - a programme which invests in carbon reduction projects around the world. The 2017 portfolio can help offset up to 2.5 million tonnes of CO² per year and includes investments in forest protection, biogas and renewable energy projects.



A NET-ZERO CARBON FOOTPRINT ALLOWS BUSINESSES TO:



Make a positive contribution to the climate challenge



Stand out from their competitors as an environmentally responsible business



Contribute to the UN Sustainable Development Goals





Castrol VECTON 15W-40 CI-4/E7

Castrol VECTON 15W-40 CI-4/E7 is an advanced mineral heavy-duty diesel engine oil that is specifically engineered to deliver longer useful oil life. It is suitable for use in high speed 4-stroke diesel engines that use a broad range of fuel qualities. It is also compatible with diesel engines fitted with exhaust gas recirculation (EGR) system.

Castrol VECTON 15W-40 CI-4/E7 with System Pro Technology™ delivers up to 45% extra performance reserve*** that fights oil breakdown and also adapts to higher temperatures for longer useful oil life, giving you confidence in your maximum drain interval.

Pack sizes

5L • 20L • 210L • 1000L • BULK

Product performance claims

ACEA E7 • API CI-4 • MB-Approval 228.3 • MAN M 3275-1 • Global DHD-1 • Renault RLD-2 • Volvo VDS-3 • Cummins CES 20076, CES 20077, CES 20078 • Cat ECF-2

• Mack EO-N, EO-M Plus



Castrol VECTON Long Drain 10W-40 E7

Castrol VECTON Long Drain 10W-40 E7 is an advanced part synthetic heavy-duty diesel engine oil that is specifically engineered to deliver longer useful oil life. It is suitable for use in highly rated diesel engines meeting Euro I to Euro V emission requirements. It is suitable for engines without particulate filters, for some EGR engines and some engines fitted with SCR NOx reduction systems.

Castrol VECTON Long Drain 10W-40 E7 with System Pro Technology™ is specifically engineered and tested for extended drains up to 120,000 km**. Castrol VECTON Long Drain products deliver up to 45% extra performance reserve*** that fights oil breakdown and adapts to higher temperatures for longer useful oil life, giving you confidence in your maximum drain interval.

Pack sizes
5L • 20L • 210L

Product performance claims

ACEA E4, E7 • API CI-4 • JASO DH-1 • Cummins CES

20077, CES 20078 • DDC Powerguard 93K215 • Deutz

DQC III-10 • Mack EO-N • MAN M 3277 • MB-Approval

228.5 • MTU Oil Category 3 • RVI RLD-2 • Volvo VDS 3 •

Meets - Ford WSS-M2C944-A



Castrol VECTON Long Drain 10W-40 E4/E7

Castrol VECTON Long Drain 10W-40 E4/E7 is an advanced part synthetic heavy-duty diesel engine oil that is specifically engineered to deliver longer useful oil life. It is suitable for use in highly rated diesel engines meeting Euro I to Euro V emission requirements. It is suitable for engines without particulate filters, for some EGR engines and some engines fitted with SCR NOx reduction systems.

Castrol VECTON Long Drain 10W-40 E4/E7 with System Pro Technology™ is specifically engineered and tested for extended drains up to 120,000 km**. Castrol VECTON Long Drain products deliver up to 45% extra performance reserve*** that fights oil breakdown and adapts to higher temperatures for longer useful oil life, giving you confidence in your maximum drain interval.

Pack size 208L

Product performance claims

ACEA E4, E7 • API CI-4 • JASO DH-1 • Cummins CES

20077, 20078 • Deutz DQC III-10 • Mack EO-N

- MAN M 3277 MB-Approval 228.5 MTU Oil Category
- 3 RVI RLD-2 Volvo VDS 3 DDC Powerguard 93K215

References





Castrol VECTON Long Drain 10W-40 E6/E9 is an advanced synthetic heavy-duty diesel engine oil that is specifically engineered to deliver longer useful oil life. It is suitable for highly rated diesel engines meeting Euro I to Euro VI emission requirements. It is suitable for engines with or without particulate filters, and for most EGR engines and for most engines fitted with SCR NOx reduction systems. It is strongly recommended for engines fitted with particulate filters and is designed for use in combination with low sulphur diesel fuel.

Castrol VECTON Long Drain with System Pro Technology™ is specifically engineered and tested for extended drains up to 120,000 km**. Castrol Vecton Long Drain products deliver up to 45% extra performance reserve*** giving you confidence in your maximum drain interval.

Pack size 208L

Product performance claims

ACEA E6, E7, E9 • API CJ-4 • JASO DH-2 • CAT ECF-3 • Cummins CES

20081 • Deutz DQC IV-10LA • Mack E0-0 Premium Plus, E0S-4.5 • MAN

M 3271-1 M 3477 • MB-Approval 228.51 • MTU Oil Category 3.1 • RVI

RLD-3 • Volvo CNG VDS-4 VDS-4.5 • For Iveco trucks requiring • ACEA E6

• E7 • E9 • Meets DAF Euro VI requirements

Based on tests conducted on 81% of the whole Castrol VECTON range by volume based on 12 months' sales up to March 2017.

"Is approved by MAN for oil drain up to 120,000 km, in accordance with their specifications. Actual oil drain depends on engine type, operating conditions, service history, OBD and fuel quality.

Always consult your manufacturer's handbook.

Introducing Castrol CRB



FOR UP TO 2X LONGER ENGINE LIFE.

Castrol is proud to Castrol CRB Turbomax with DuraShield™ boosters, the new product that offers you up to two times longer engine life*.

The Castrol CRB purpose is to passionately deliver complete engine protection to trucks, tractors and other commercial vehicles through innovation and deep consumer insights, backed with expertise in the automotive lubrication technology.

Why Castrol CRB Turbomax with DuraShieldTM boosters?

Castrol CRB Turbomax contains specially engineered DuraShield™ boosters that help fight the main causes of engine damage giving you long and healthy engine life. In severe testing, Castrol CRB Turbomax with DuraShield™ boosters delivers up to two times engine life* giving you uncompromised care you can rely on.

Castrol CRB Turbomax with DuraShield™ boosters is proven in industry testing to help provide protection to your engine in two ways:

Prevents soot agglomeration

Under severe engine operating conditions soot can agglomerate to form large particles which help to displace oil on moving metal surfaces. This results in metal to metal contact. Even particles 1000 times smaller than a pinhead can cause abrasive wear, a key engine deterioration factor.

DuraShield™ Boosters form a protective layer around the smaller soot particles, which stops them from forming larger abrasive particles. This helps prevent displacement of oil on moving surfaces and reduces metal to metal contact.

Forms a protective layer

Castrol CRB Turbomax with DuraShield Boosters™ provides a protective layer on the moving metal surfaces, which resists breakdown even under difficult conditions.



Brand Legacy

Castrol CRB has a legacy of over 80 years of building a strong brand based on innovation and deep consumer insights. Here are few pioneering moments which have helped in establishing Castrol CRB as a global power brand.



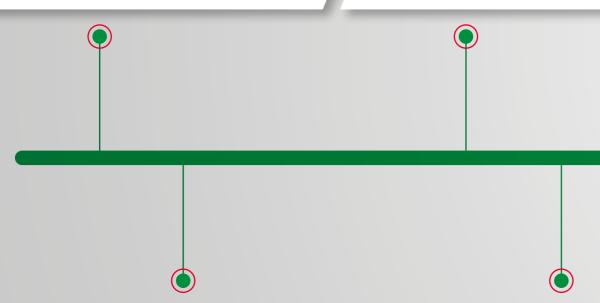
Castrol CRB was launched in 1932 and for over 80 years it has been a pillar of growth and innovation for the CVO space



In 2012, Castrol CRB
Turbo and Castrol CRB
Plus with DuraShield™
Boosters was launched
which provides upto 2
times engine protection*



In 2018 the brand forayed into Purpose led marketing with a Health and Wellness campaign making a real difference to truckers' health





In 2008, launched Castrol CRB oil with synthetic technology



It has many firsts to its advantage like being the first multi-grade diesel engine oil, the first oil brand with extreme temperature protection formula, first diesel engine oil with synthetic technology



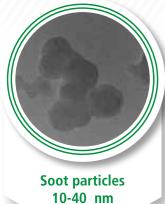
In 2015, Castrol CRB with DuraShield™ Boosters successfully established itself across 20 markets and have crossed the 100m\$ GM mark

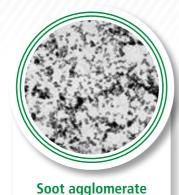
TECHNICAL STORY

THE PROBLEM

Soot agglomeration leads to abrasive wear.

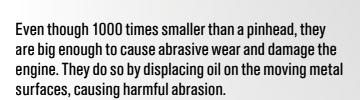
Despite you taking the best care, from the first day you drive your truck the engine remains vulnerable to damaging wear. Tiny soot particles attract each other to form larger particles.







300-1000 nm





TECHNICAL STORY



THE SOLUTION

Castrol CRB Turbomax with DuraShield™ Boosters

Castrol CRB Turbomax with specially formulated DuraShield™ Boosters protects against wear to help ensure a long and healthy engine life in two specific ways:

Prevent soot agglomeration:

DuraShield™ Boosters form a protective layer around the smaller soot particles, which stops them from forming larger abrasive particles. This helps prevent displacement of oil on moving surfaces, and reduces metal to metal contact.

Forms protective layer:

Castrol CRB Turbomax with DuraShield™ Boosters provides a protective layer on the moving metal surfaces, which resists breakdown even under difficult conditions.



Get up to two times longer engine life with Castrol CRB Turbomax with DuraShield™ boosters.

Give your business the best

The future of your business, and your family, relies on you. And you rely on your vehicle. Provide it with the best care and enjoy long and healthy engine life, because it's not only the backbone of your business, it's your partner in life.



Castrol CRB Multi 15W-40 CH-4

Castrol CRB Multi 15W-40 CH-4 is a multi-purpose, heavy duty diesel engine oil. It is suitable for use in high speed 4-stroke diesel engines that use a broad range of fuel qualities.

During its working life, your engine faces challenges from combustion by-products that can form deposits and thicken the oil. Castrol CRB Multi 15W-40 CH-4 combat helps combat these issues in two ways:

- It contains cleaning agents which help to displace particles that may otherwise build up on your engine surfaces, reducing deposits.
- 2. It also contains antioxidants which help to disrupt the chemical reactions that can lead to oil thickening.

Pack sizes

5L • 1L • 20L • 210L • BULK

Castrol CRB Multi 15W-40 CH-4 helps provide protection across multiple applications to encourage long and healthy engine life.

Product performance claims

API CH-4/SJ



Castrol CRB Turbomax 15W-40 CI-4/SL/E7

New Castrol CRB Turbomax 15W-40 Cl-4/SL/E7 is an advanced heavy-duty diesel engine oil. It is suitable for use in high speed 4-stroke diesel engines that use a broad range of fuel qualities. It is also compatible with diesel engines fitted with exhaust gas recirculation (EGR) systems.

New Castrol CRB Turbomax 15W-40 Cl-4/SL/E7 contains specially engineered DuraShield™ Boosters that help fight the main causes of engine damage. In severe testing, Castrol CRB Turbomax 15W-40 Cl-4/SL/E7 with DuraShield™ boosters delivers up to twice the engine life*.

Pack sizes 5L • 20L • 210L

Product performance claims

ACEA E7 • API CI-4/SL • CAT ECF-2 • Cummins CES 20077, CES 20078 • DDC Powerguard 93K215 • Deutz DQC III-10 • Mack EO-M Plus, EO-N • MB-Approval 228.3, • MTU Oil Category 2 • RVI RLD-2 • Volvo VDS 3 • Meets requirements of MAN M 3275-1

IT'S MORE THAN JUST OIL. IT'S LIQUID ENGINEERING.



Visit www.castrol.co.za

To discuss your interest in Castrol VECTON, please contact your Castrol Distributor