



Photo: Volvo CE

# Construction Machines

Dedicated Products and Solutions



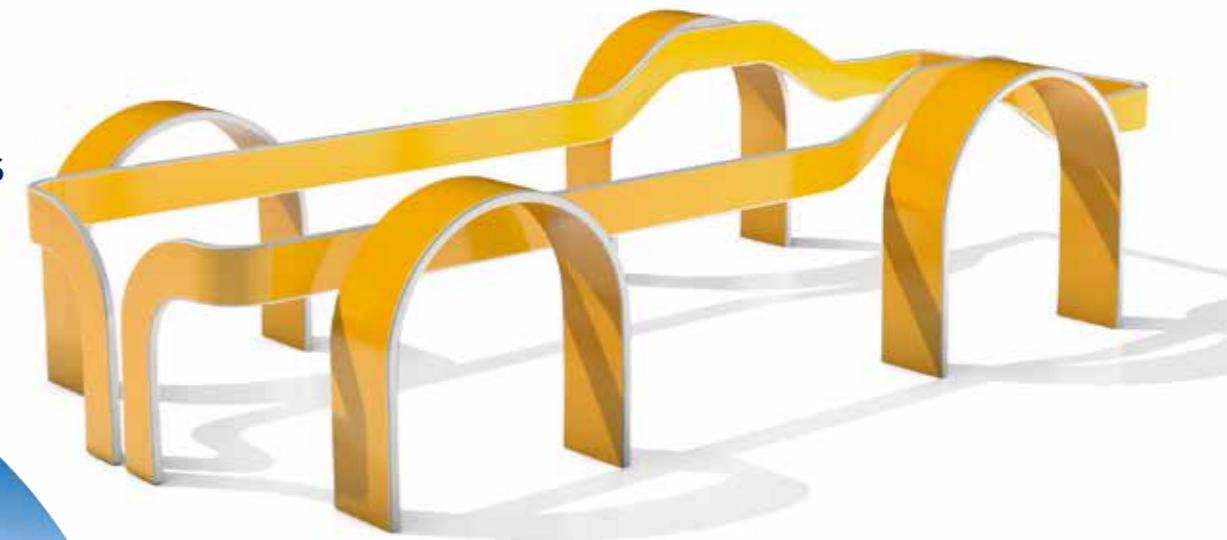
ENGINEERING YOUR SUCCESS.

# Construction Machine Subsystems

Dedicated products and system solutions by Parker



Cab



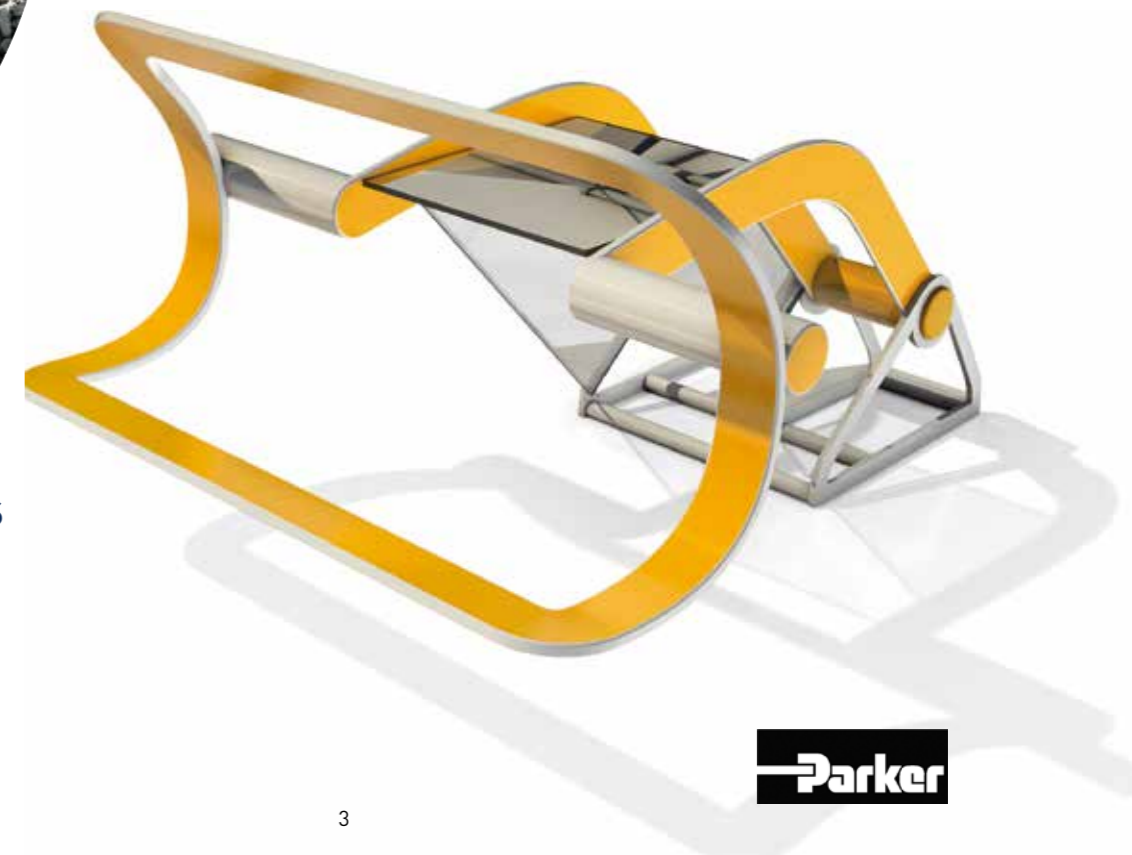
Chassis



**CONTROLLABILITY** Smarter • More flexible • Safer operation  
**PRODUCTIVITY** Quicker • Simpler • Smoother • More competitive  
**LIFE CYCLE COSTS** Cleaner • Better quality • Diagnostics  
**ENERGY SAVINGS** Efficient • Innovative • Environmentally friendly



Engine



Implements

## Cab Subsystems



### ► Touch-screen displays

The IQAN-MD4 is the latest display in the IQANdesign platform. It comes in three versions 5.4", 7" and 10" and touch screen as standard. Weather protected and easy to configure with IQAN programming tool.



### ◀ PHD display family

A cost effective range of touch screen displays developed for mobile applications.



### ► All-in-one display panel

DPE70 is a 18 cm (7") weather protected display panel that can be used in either portrait or landscape mode. It has video input, rotary encoder and 7 buttons. Easy mounting with either RAM or panel mount.



### ▼ The intelligent way to higher productivity

IQAN by Parker is a flexible electronic control system containing all functions for total system solutions. With the user-friendly software tool IQANdesign, you can build advanced machine functions in a simple way, increasing productivity and cutting costs.



### ◀ Machine diagnostics

Wireless machine access by using cloud services. Machine diagnostics by smartphone or tablet together with IQAN apps IQANsync and IQANrun.



### ▼ Universal tilt sensor

The UTS is a dual axis tilt sensor with CAN communication for mobile applications.



### ▼ Ergonomic operation

A range of linear and joy-stick levers for pilot control, adapted to the specific demands of construction machines.



### ▼ Pneumatic buttons and control valves

Available with dual pneumatic and electrical output signals.

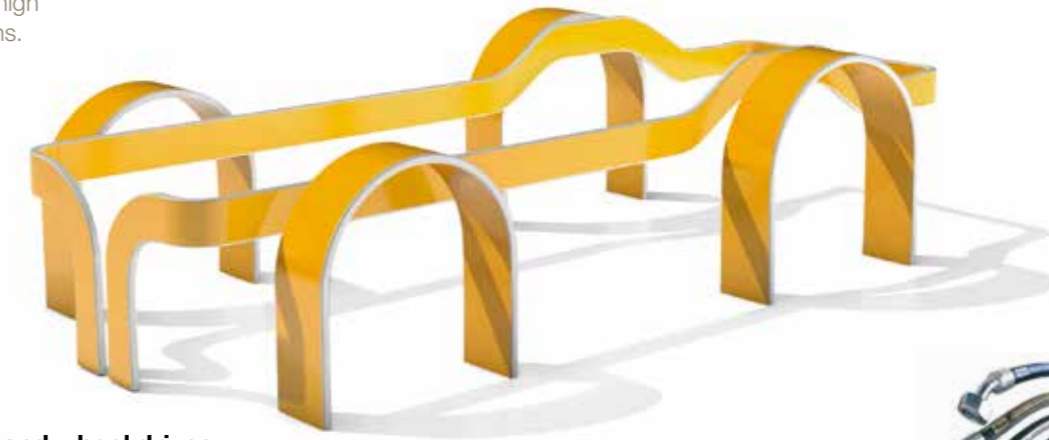


### ▼ Electro-Hydraulic Actuator

Compact EHA – Electro-Hydraulic Actuator – provides the power density of hydraulics but is driven from the vehicle's electrical system. Self-contained, with compact dimensions and two-pin mounting, installation of the Compact EHA is simple, while electrical drive avoids the parasitic losses associated with engine-driven pumps.



## Chassis Subsystems



### ▼ Swing and traction on mini-excavators

High efficiency, low speed and high torque for excavator applications.



### ◀ Track and wheel drives

Heavy duty, compact variable displacement motors featuring extensive speed ranges and controls adapted for the application.

### ► Power Take-Offs

A wide range of heavy duty power take-offs range for gearbox or direct coupling.



### ◀ F3 Truck pump

The F3 pump can be engaged and disengaged on the fly – the perfect pump to install on an engine PTO.



### ► F12-XL hydraulic motor

A motor with unbeatable efficiency – small envelope size, low noise level and high power-to-weight ratio.



### ◀ Super Shockless swing drive

Heavy duty motor for demanding applications, offering outstanding reliability and durability.



### ◀ Pre-formed hoses

Pre-formed hoses provide design advantages and space savings with fewer potential leakage points than hose-tube combinations.



### ► Take control of your transmission

Parker transmission control cartridge valves offer well-proven technology in a single-piece compact format, covering all your requirements – differential locks, power take-offs, power shifts, power shuttles, clutch operations, etc.

### ► Hoses and connectors

A wide range of hoses and connectors for mobile markets with possible PTS system for tagging and tracking Parker hose assemblies.



### ◀ EO3

Innovative fittings system with visual assembly status recognition for tube and hose applications.



### ► Store energy

A complete range of CE-approved bladder, diaphragm and piston accumulators maintains high pressure for safe braking, manoeuvring and smooth ride control.



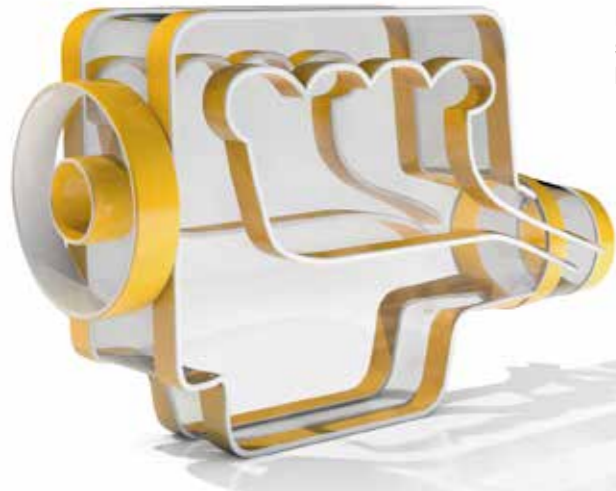
### ▼ Racor ECO-Vent – DEF Tank Vent Filter

The ECO-Vent Filter prevents contamination from entering the DEF tank. The compact design requires no tools for filter servicing. The patented filter snaps easily into the bracket.

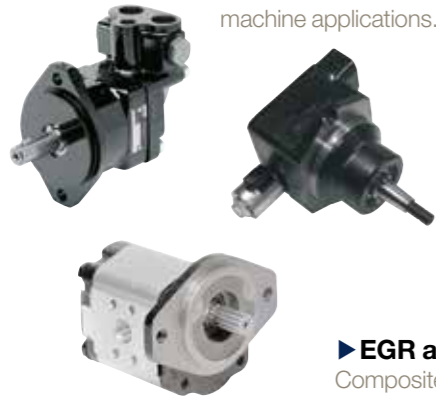


# Engine Subsystems

**▼ Adding system life by adding Parker Filtration solutions**  
 Parker Filtration extends the life and increases reliability of machinery and systems. A wide range of low, medium and high pressure hydraulic filters, lube and fuel filter products and quality reservoir accessories.



**▼ Hard working motors for fan drives, etc.**  
 Heavy duty, compact piston, vane and gear motors for cooling fans and many other construction machine applications.



**▼ Sensors**  
 Fast response time and quick and safe connection guarantees safe capture of pressure in hydraulic systems.



**◀ Cooling systems**  
 Compact, lightweight and efficient air/oil cooling systems, developed for mobile applications.



**▶ Diesel Emission Fluid (DEF) heating valves**  
 Solenoid operated fluid heating valves suitable for chassis mounting or system integration.



**▶ EGR actuator**  
 Composite actuator body, resistant to temperature and shock extremes for direct engine mounting.



**▼ Crankcase ventilation**  
 Eliminates environmental pollution from crankcase emissions and improves diesel engine reliability.



**◀ Engine brake**  
 Bio-fuel compatible, compact 2-way valves for engine installation, offering added braking power.



**▶ Connectors**  
 Parker offers fittings that provide leak free solutions. Parker fittings generally connect a hose assembly to a port or adapter and are manufactured to meet or exceed industrial specification requirements of SAE, ISO, DIN, DOT and JIS standards.



**Racor Engine air cleaners**  
 ECO-TL heavy duty air cleaners are designed and built to meet the demanding requirements for construction equipment with ease of service and extended element service life.



# Implement Subsystems

**▶ Proportional load sensing valves for construction machines**  
 Function-optimized valves for system requirements between 50 and 300 l/min pump flow.



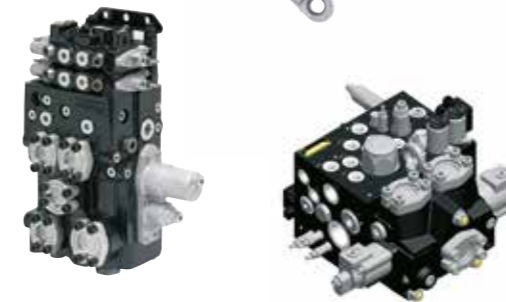
**▶ Customized cylinders**  
 Designed to deliver sustained high performance over a long service life.



**▼ Dedicated LS valves for large wheel loaders**  
 Special solutions for the ultimate wheel loaders allow high speeds without cavitation.



**◀ Dedicated vehicle system manifold solutions**  
 Pre-assembled, customized system blocks with mobile spool valves optimize functionality and simplify installation.



**▼ Unlimited flexibility for all excavator sizes**  
 A wide range of valves with function optimized sections, including load sensing and negative flow variants.



**▼ Quiet power**  
 A wide range of variable piston and vane pumps to cover every need – compact, lightweight with high performance and excellent efficiency.

**▼ Open centre valves optimized for construction applications**  
 Dedicated spools for every function makes operation very efficient.



**▼ Oil cleanliness sensors and diagnostics**  
 The Icount Oil Sampler (IOS) portable monitoring tool provides fluid qualification to ISO 4406:1999 standards. The IcountPDR is a robust particle counter for mobile applications.



**▼ Gear motors and pumps**  
 State-of-the art gear motors and pumps in cast iron or aluminium with high efficiency and low noise levels.

**▶ EHP subsystems for fuel-efficient, quiet machines**  
 Parker's Electro-Hydraulic Pump subsystems include directly coupled permanent magnet motor/generators with hydraulic pump/motors. The electric motor is controlled by an intelligent DC/AC inverter enabling energy recovery. EHPs are used for power steering, implement actuators and additional auxiliary functions.



# Parker Worldwide

## Europe, Middle East, Africa

**AE – United Arab Emirates,** Dubai

Tel: +971 4 8127100  
parker.me@parker.com

**AT – Austria,** Wiener Neustadt  
Tel: +43 (0)2622 23501-0  
parker.austria@parker.com

**AT – Eastern Europe,** Wiener Neustadt  
Tel: +43 (0)2622 23501 900  
parker.easteurope@parker.com

**AZ – Azerbaijan,** Baku  
Tel: +994 50 22 33 458  
parker.azerbaijan@parker.com

**BE/LU – Belgium,** Nivelles  
Tel: +32 (0)67 280 900  
parker.belgium@parker.com

**BG – Bulgaria,** Sofia  
Tel: +359 2 980 1344  
parker.bulgaria@parker.com

**BY – Belarus,** Minsk  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**CH – Switzerland,** Etoy  
Tel: +41 (0)21 821 87 00  
parker.switzerland@parker.com

**CZ – Czech Republic,** Klecany  
Tel: +420 284 083 111  
parker.czechrepublic@parker.com

**DE – Germany,** Kaarst  
Tel: +49 (0)2131 4016 0  
parker.germany@parker.com

**DK – Denmark,** Ballerup  
Tel: +45 43 56 04 00  
parker.denmark@parker.com

**ES – Spain,** Madrid  
Tel: +34 902 330 001  
parker.spain@parker.com

**FI – Finland,** Vantaa  
Tel: +358 (0)20 753 2500  
parker.finland@parker.com

**FR – France,** Contamine s/Arve  
Tel: +33 (0)4 50 25 80 25  
parker.france@parker.com

**GR – Greece,** Athens  
Tel: +30 210 933 6450  
parker.greece@parker.com

**HU – Hungary,** Budaörs  
Tel: +36 23 885 470  
parker.hungary@parker.com

**IE – Ireland,** Dublin  
Tel: +353 (0)1 466 6370  
parker.ireland@parker.com

**IT – Italy,** Corsico (MI)  
Tel: +39 02 45 19 21  
parker.italy@parker.com

**KZ – Kazakhstan,** Almaty  
Tel: +7 7273 561 000  
parker.easteurope@parker.com

**NL – The Netherlands,** Oldenzaal  
Tel: +31 (0)541 585 000  
parker.nl@parker.com

**NO – Norway,** Asker  
Tel: +47 66 75 34 00  
parker.norway@parker.com

**PL – Poland,** Warsaw  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**PT – Portugal,** Asker  
Tel: +351 22 999 7360  
parker.portugal@parker.com

**RO – Romania,** Bucharest  
Tel: +40 21 252 1382  
parker.romania@parker.com

**RU – Russia,** Moscow  
Tel: +7 495 645-2156  
parker.russia@parker.com

**SE – Sweden,** Spånga  
Tel: +46 (0)8 59 79 50 00  
parker.sweden@parker.com

**SK – Slovakia,** Banská Bystrica  
Tel: +421 484 162 252  
parker.slovakia@parker.com

**SL – Slovenia,** Novo Mesto  
Tel: +386 7 337 6650  
parker.slovenia@parker.com

**TR – Turkey,** Istanbul  
Tel: +90 216 4997081  
parker.turkey@parker.com

**UA – Ukraine,** Kiev  
Tel: +48 (0)22 573 24 00  
parker.poland@parker.com

**UK – United Kingdom,** Warwick  
Tel: +44 (0)1926 317 878  
parker.uk@parker.com

**ZA – South Africa,** Kempton Park  
Tel: +27 (0)11 961 0700  
parker.southafrica@parker.com

## North America

**CA – Canada,** Milton, Ontario  
Tel: +1 905 693 3000

**US – USA,** Cleveland (industrial)  
Tel: +1 216 896 3000

**US – USA,** Elk Grove Village (mobile)  
Tel: +1 847 258 6200

## Asia Pacific

**AU – Australia,** Castle Hill  
Tel: +61 (0)2-9634 7777

**CN – China,** Shanghai  
Tel: +86 21 2899 5000

**HK – Hong Kong**  
Tel: +852 2428 8008

**ID – Indonesia,** Tangerang  
Tel: +62 21 7588 1906

**IN – India,** Mumbai  
Tel: +91 22 6513 7081-85

**JP – Japan,** Fujisawa  
Tel: +81 (0)4 6635 3050

**KR – South Korea,** Seoul  
Tel: +82 2 559 0400

**MY – Malaysia,** Shah Alam  
Tel: +60 3 7849 0800

**NZ – New Zealand,** Mt Wellington  
Tel: +64 9 574 1744

**SG – Singapore**  
Tel: +65 6887 6300

**TH – Thailand,** Bangkok  
Tel: +662 186 7000

**TW – Taiwan,** New Taipei City  
Tel: +886 2 2298 8987

**VN – Vietnam,** Ho Chi Minh City  
Tel: +84 8 3999 1600

## South America

**AR – Argentina,** Buenos Aires  
Tel: +54 3327 44 4129

**BR – Brazil,** Cachoeirinha RS  
Tel: +55 51 3470 9144

**CL – Chile,** Santiago  
Tel: +56 2 623 1216

**MX – Mexico,** Toluca  
Tel: +52 72 2275 4200

Ed. 2016-04-04



### EMEA Product Information Centre

Free phone: 00 800 27 27 5374

(from AT, BE, CH, CZ, DE, DK, EE, ES, FI, FR, IE, IL, IS, IT, LU, MT, NL, NO, PL, PT, RU, SE, SK, UK, ZA)

### US Product Information Centre

Toll-free number: 1-800-27 27 537

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