



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding







# DuraClean™

Premium Hydraulic Fluid





## **Applications**

#### Together we can...

- Preserve the environment.

  Minimize waste and promote energy efficiency.
- Achieve worldwide filtration solutions.

  Build global confidence.
- Redefine new limits.
  Forge ahead with advanced technology.
- Keep contamination under control. Reduce maintenance costs.
- Enhance total system reliability. Focus on customer satisfaction.
- Reach optimum potential. Drill to greater depths.
- ...engineer your success.

DuraClean<sup>™</sup> hydraulic fluid was developed with a totally unique 'Clean Technology.' This fluid innovation keeps harmful deposits from settling on components. These deposits can lead to system damage, component replacement, unanticipated downtime and compromised performance. Parker DuraClean<sup>™</sup> makes it possible for hydraulic systems to 'Start Clean and Stay Clean.'

Durable performance allows the formulation to provide excellent protection of components even after the fluid has been used extensively. Varnish protection solutions provide proven performance and viscosity retention in wide temperature range, setting Parker DuraClean™ apart from competitive fluids.

### **Applications**

- Drain-and-change for most industrial and mobile hydraulic systems specifying mineral-based oil
- Top-treat for replenishing hydraulic systems already using VG 32, 46, and 68 hydraulic oils
- Wide operating temperature range requirements
- High performance hydraulic power units and equipment
- Systems with high pressures and temperatures



Starts Clean. Stays Clean.

DuraClean™ is an ultra premium hydraulic oil provided exclusively by Parker. The fluid has a unique additive chemistry designed to maximize oil life while providing optimum anti-wear protection for the components of today's advanced hydraulic systems.

#### Performance Features

- ISO 46, all season, multigrade hydraulic fluid
- Replaces ISO 32, 46, and 68 monogrades
- API Group II base oil extends oil life
- High viscosity index for wide operating temperature ranges
- Outstanding oxidation life to maximize component life
- Prevents varnish formation
- Clean, as packaged, to ISO 17/15/12 cleanliness standard
- Special formulation that allows for rapid air release and water separation
- Excellent filterability to minimize filter blockage
- Outstanding acrylate anti-foam agent contains no silicones, which can lead to inacurate particle counts
- Excellent shear stability for stable viscosity over time
- Superior thermal stability for uncompromised performance at high temperatures
- Parker gold dye for easy identification
- Formulated to help extend the life of hoses and seals

# Performance Approvals

- Parker Hannifin HF-0 (Denison HF-0)
- Eaton Vickers brochure 03-401-2010 (M-2950-S and I-286-S)
- Cincinnati Machine P-70
- Meets DIN 51524 Part 3 requirements
- Meets US Steel 127



# DuraClean™ vs. Varnish

	Without DuraClean™	With DuraClean™
Oil Flow	Leaves critical system components starved for lubrication and leads to part failure	Keeps system protected and extends component life
Filters	Develops plugged filters which forces fluids to bypass filters increasing contaminants and excessive wear and necessitates extra filter changes	Protects system from contaminants and plugged filters
Valves	Creates loss of system control which has a negative impact on productivity and results in downtime for cleaning and repairs	Maintains system cleanliness and keeps valves free from damaging varnish
Friction	Creates higher friction causing increases in fuel and energy consumption, component wear and lower productivity	Improves system efficiency, extends component life and maintains productivity
Thermal Stability	Promotes oxidation of fluid and thermal breakdown, creating varnish and increasing wear	Keeps system operating at cooler temperatures allowing the oil and the components to last longer
Varnish Protection	Increases the need for frequent cleaning and repairs	Minimizes the need for frequent cleaning and repairs
	Varnish	No Varnish

DuraClean™ vs. Varnish

## Without Parker DuraClean™ -

**Varnish** 

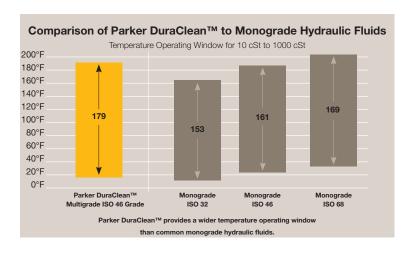


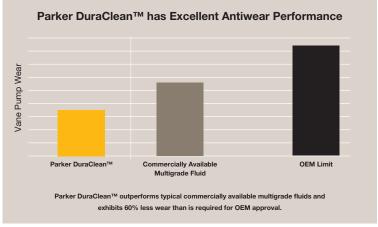
Varnish is attracted to metal surfaces, this results in an overall decrease in productivity.

# With Parker DuraClean™ - No Varnish



Parker DuraClean<sup>™</sup> prevents the harmful build-up of varnish, keeping systems clean and operating at peak efficiency.





If a hydraulic system is dirty, simply using Parker DuraClean will not clean it up, but it will effectively prevent the formation of varnish in a clean system and keep the delicate balance of additive performance intact.

# Specifications

Typical Properties	Test Method	
ISO Grade		Multigrade 46
Appearance		Parker Gold
Specific Gravity @ 15°C	D4052	.867
Flash Point (COC) °F(°C)	D92	413 (212)
Pour Point °F(°C)	D97	-43 (-42)
Viscosity	D445	
cSt @ 40°C		44.30
cSt @ 100°C		7.65
Viscosity Index	D2270	141
Acid Number, mg KOH/g TAN	D664	0.6
Oxidation, hrs.	D943	5500 - 6000 Typical
Rust Test	D665A/D665B	Pass
Denison Filterability		
Dry, time in seconds		172 (600 maximum limit)
Wet, time in seconds		202 (344 maximum limit)
Thermal Stability, sludge in mg		2.5 (25 maximum limit)
Shear Stability	KRL	
% viscosity loss after 20 test hours		4.3 (15 maximum limit)

# Ordering Information

Package Size	Part Number	Minimum Order Qty.		
Jug (2 1/2 gal.)	942180	72		
Pail (5 gal.)	941907	24		
Drum (55 gal.)	942125	4		
Tote (275 gal.)	942126	1		

Other volumes may be available. Please consult factory.

# **Visual Representation of New Fluid Cleanliness** VS.

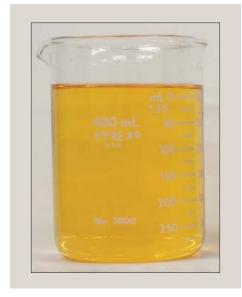
# Fluid Oxidation After 1,300 Hours

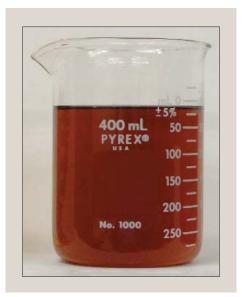


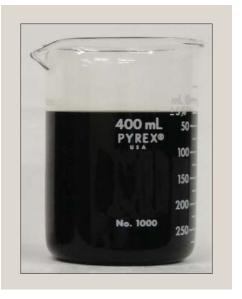




Initial samples taken directly from a 5 gallon pail







Same samples after 1,300 hours of exposure @ 200°F

Lab Report #8090 On-File

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