

OIL ELEMENT ANALYSIS SPECTROMETER CODE OES-OL800



- According to ASTM D6595, ASTM D6728, NB/SH/T 0865-2013, HB 20094.1-2012
- By detecting changes in contamination elements in the lubricating oil and additives, the degree of wear and tear on the bearings or engines can be assessed
- Detects 24 elements including Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sb, Sn, Ti, V, and Zn, expandable to 32 elements
- With high detection accuracy, the detection limit is less than 1 ppm
- Fast sample testing, single test time less than 35s
- No sample preparation, safe and environmentally friendly testing

SPECIFICATION

Optical structure	paschen-runge structure
Radius of rowland circle	350mm
Wavelength range	190~810nm
Detector	multi-CCD inspection system
Pixel resolution	12×3648 pixels
Raster scale	2700 bars/mm
Intelligent light room	38±0.5°C
Optical focal length	500mm
Detecting element	conventional 24 types
Working environment	0~55°C, 20~80%RH
Power supply	AC220V, 50Hz
Dimension	860×470×620mm
Weight	95kg

STANDARD DELIVERY

Main unit	1 pc
Computer	1 set
Software	1 set
Electrode sharpener	1 pc
Substrate lubricant	1 set
Standard oil	1 set
Oil box tray	1 pc
Waste oil box	1 set
Rod electrode (OES-OL800-RE)	1 set
Disc electrode (OES-OL800-DE)	2 sets
Oil cup (OES-OL800-CUP)	1 set
Pipette (OES-OL800-PIP)	1 set

DETECTION OF POLLUTING ELEMENTS

Element	Possible sources
Ag	bearing cage (plated), gear teeth, shafts
Al	piston, bearing, pump, thrust washer
B	coolant, dust, anti-corrosion additives in water
Ba	anti-corrosion and anti-oxidant additives, grease
Ca	detergent or dispersant additives
Cd	bearings, gears
Cr	piston rings in internal combustion engines
Cu	bearings, brass or bronze alloys, bearings, thrust washers
Fe	shaft, roller bearing, cylinder, gear, piston ring
K	coolant additives
Li	grease, additives
Mg	transmission, detergent additive
Mn	valve, injector
Mo	piston rings, electric motors, extreme pressure additives
Na	detergent or coolant additive
Ni	bearings, valve train, turbine blades
P	antiwear additives, extreme pressure gear additives
Pb	bearing, fuel additive, antiwear additive
Sb	bearing, grease
Si	dust/dirt, antifoam additive
Sn	journal bearings, bearing cages, welding
Ti	bearing hubs, compressor blades
V	catalyzer
Zn	neoprene seals, grease, antiwear additives

software (included)

software interface

The screenshot shows the WinQWin software interface. At the top, there is a menu bar with options: Analysis, Calibration, Data, Detector, Curve, System, and About. Below the menu bar is a toolbar with buttons for 'Sample', 'Save report', 'Print', 'Save data', 'Send', 'Export data', and 'Clear'. On the left side, there is a list of elements including Cr, Pb, Cu, Sn, Al, Ni, Ag, S, B, Mg, Ca, P, Zn, Ba, Mo, Ti, V, Mn, Cd, Na, Li, K, and Sb. On the right side, there is a control panel with 'Display Mode' and 'Element Concentration' dropdown menus, a 'Grades' dropdown, and buttons for 'Display ID and RID', 'Recycle', 'Delete', and 'Recover'. At the bottom right, there is a green 'Excite' logo and buttons for 'Recalculate', 'Import', and 'Derived'. The status bar at the bottom displays: administrator | Curve: 曲线 | Last standardized date: 1/1/0001 12:00:00 AM | 0.00 | Excite count: 1957 | ID: 1720651409 | 报告日期: 2024-12-02

report

Report

Sample name:

Curve name: 011

Analysis time: 11/26/2024 11:55:58

Operator: administrator

Element	Fe	Al	Mn	Cu	Cr	Ag	Ti	Si	Zn
1	99.92	100.03	100.04	100.54	101.72	99.65	100.95	100.79	100.44
2	100.25	100.78	101.45	102.95	100.99	99.22	100.47	100.91	101.34
AVG	100.03	100.91	101.05	102.05	101.35	99.44	100.25	100.84	100.89
SD	0.31	0.18	0.57	0.71	0.52	0.30	0.30	0.09	0.43
RSD	0.31	0.18	0.57	0.70	0.51	0.30	0.30	0.09	0.43

Element	Si	B	Mg	Ca	P	Zn	As	Mo	V
1	100.08	99.30	99.43	104.42	99.83	99.34	100.01	100.82	99.68
2	100.37	92.19	102.24	105.24	100.33	100.13	100.16	100.78	99.69
AVG	100.22	92.75	100.83	102.83	100.08	99.73	100.09	100.80	99.77
SD	0.22	0.79	1.05	2.25	0.35	0.56	0.11	0.03	0.15
RSD	0.22	0.85	1.03	2.19	0.35	0.56	0.10	0.03	0.15

Element	Mn	Cl	Ba	Li	K	Sb
1	99.73	97.95	102.08	102.04	103.33	99.83
2	100.23	100.77	101.45	100.94	99.77	101.53
AVG	100.03	99.36	102.14	100.09	101.55	100.68
SD	0.43	1.99	1.01	0.21	2.52	1.20
RSD	0.43	2.00	0.99	0.21	2.40	1.20