

RISK RECKONER

How The ISO Code Works



Industrial Filtration



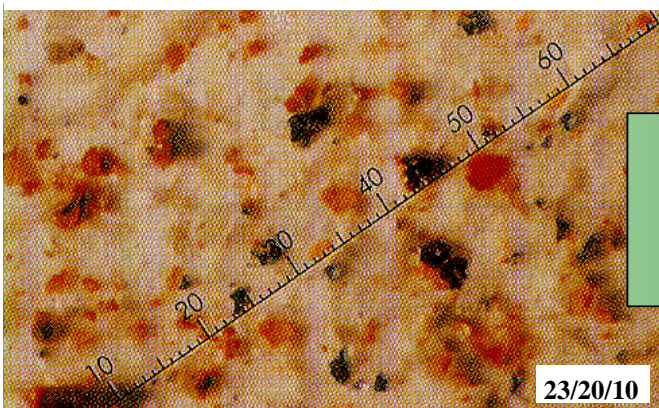
Biodegradable Lubricants

- Readings refer to a 100 ml oil sample
- There are 3 one and two-digit numbers
- The first refers to the number of particles above 2 microns
- The second refers to the number of particles above 5 microns
- The third refers to the number of particles above 15 microns
- Use your oil analysis particle counts to identify the relevant code number

(The NAS code, used in Europe, is similar to the ISO code, but counts particle in four categories — 5µ, 15µ, 25µ and 50µ)

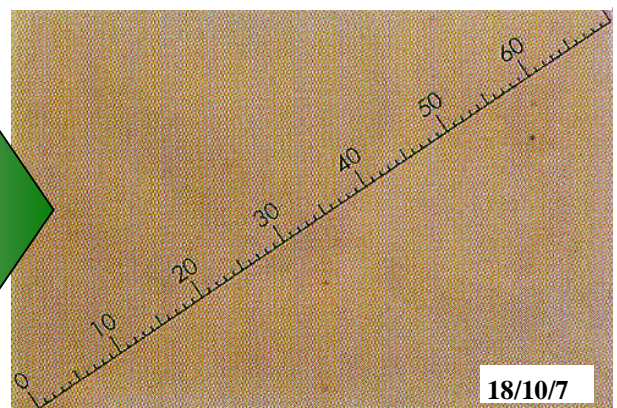
Cleanliness Level Correlation Table					
ISO Code	Particles / Millilitre			NAS 1638 (1964)	Disavowed SAE Level (1963)
	≥2 Micrometers	≥5 Micrometers	≥15 Micrometers		
23/21/18	80,000	20,000	2,500	12	-
22/20/18	40,000	10,000	2,500	-	-
22/20/17	40,000	10,000	1,300	11	-
22/20/16	40,000	10,000	640	-	-
21/19/16	20,000	5,000	640	10	-
20/18/15	10,000	2,500	320	9	6
19/17/14	5,000	1,300	160	8	5
18/16/13	2,500	640	80	7	4
17/15/12	1,300	320	40	6	3
16/14/12	640	160	40	-	-
16/14/11	640	160	20	5	2
15/13/10	320	80	10	4	1
14/12/9	160	40	5	3	0
13/11/8	80	20	2.5	2	-
12/10/8	40	10	2.5	-	-
12/10/7	40	10	1.3	1	-
12/10/6	40	10	.64	-	-

BEFORE



Oil photograph 100 x magnification - after 2.000 operating hours in a hydraulic excavator -

AFTER



Oil photograph 100 x magnification - after filtration with a Cardev filter rig -

RISK RECKONER



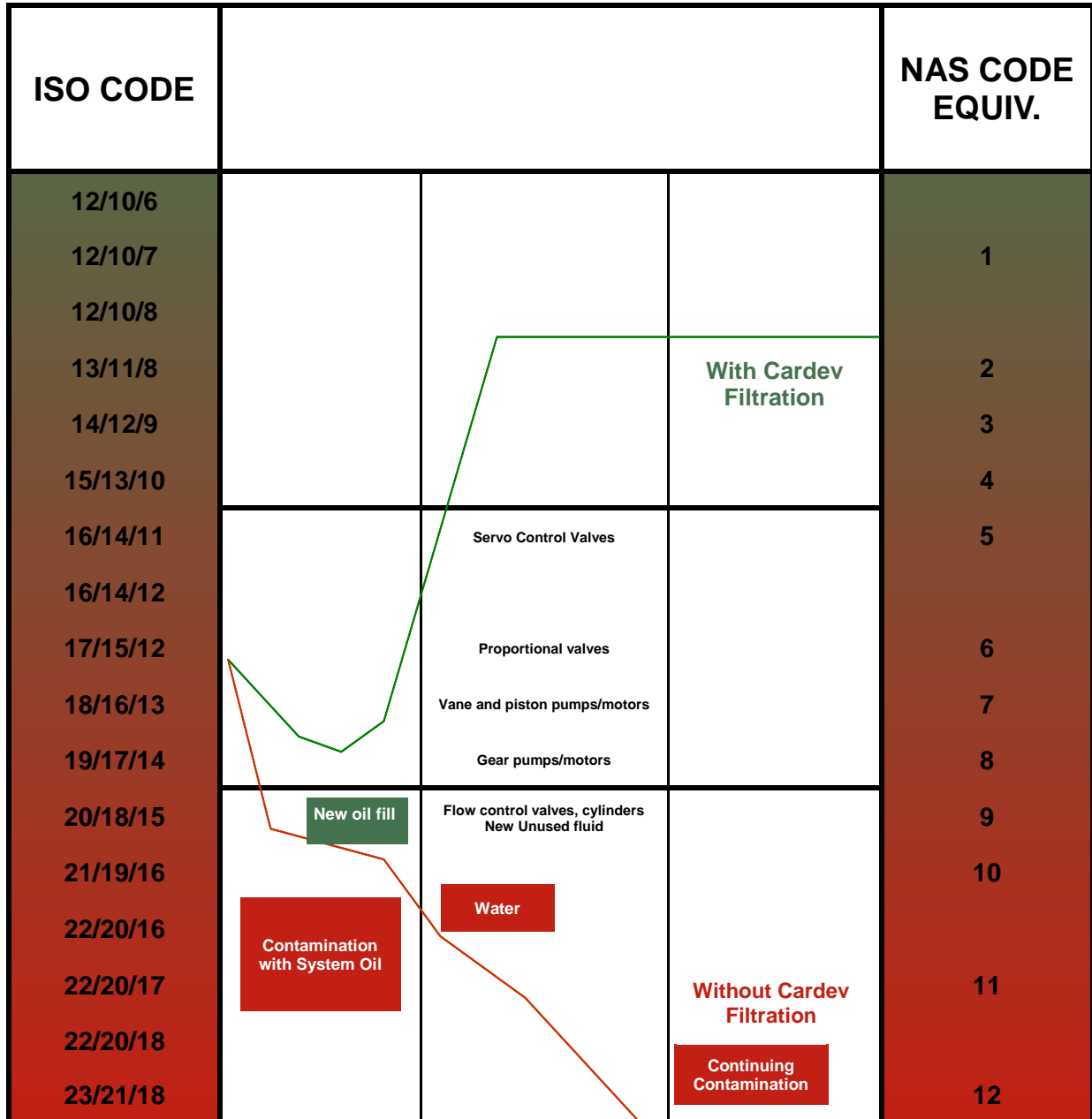
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How to use the Cardev Risk Reckoner

1. Check your machinery type on the chart below
2. Look for the most appropriate ISO code or NAS grade
3. Compare you actual reading with the recommended cleanliness class
4. The further into danger level, the greater the risk of catastrophic failure



80% of hydraulic problems are related to inadequate contamination control practices

If your reading is in the **DANGER ZONE**, ring now and ask about

The Cardev Range of Filtration Products

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