

**FM2 Bypass Oil Filter Metering Valve, John Deere 450 LC : JR Hale Contracting, Albuquerque**

JR Hale Contracting, Albuquerque, New Mexico installed a Kleen System KS-100A-FM2 metering valve to FTA FM 2 bypass oil filter to their John Deere 4500 LC Excavator.



The KS-100A-FM 2 was installed with 2219 hours on the John Deere 450 LC ISO level report below indicate the oil at 19/17/14, after installation of the Kleen System the oil was re sampled at 2289 hours and found to be at ISO 18/16/13 a 63% reduction in particulate contamination.

JR Hale have now several machines now fitted with the KS-100-FM2 and continue to be impressed with the results obtained and see it as part of their proactive maintenance program as a low cost easy to maintain system.

KS100A Valve pictured below



Fluid Trend Analysis 02/05/2004		<b>CASHMAN CAT</b>		600 Glendale Ave. • Sparks, NV 89431 • 775-332-2477				Normal											
Customer Unit ID	Make	Model	Serial	Compartment															
35-302	JOHN DEERE	450C LC	091082	Hydraulic System															
Oil Sample Information				Miscellaneous				Infrared Analysis				Prior Interpretation Codes							
Control #	Date Taken	Fluid Status	Fluid Add	SMR	Fluid Run Time	A/F	H2O	Viscosity 100C	Soot	Oxi	Nit	Sul							
3-15420040116	01/02/2004	Sampled	0.0		2219	2219	N	N	7.7	0	28	10	20	200	Fluid: JOHN DEERE HYGRADE 15W30				
4-14020040205	01/28/2004	Sampled	0.0		2299	2299	N	N	9.0	0	16	0	0						
Filter Changed ^				Wear Metals (Parts per Million)															
	Copper	Iron	Chrome	Lead	Alum	Silicon	Molybdm	Sodium	Magnesium	Tin	Zinc	Nickel	Potassium	Calcium	Phosphor				
6	3	0	0	0	0	0	0	3	2	0	107	0	4	199	73				
8	4	0	1	1	2	1	3	4	0	160	0	2	314	120					
Overall Status	Particle Counts (per Milliliter)								Current Sample Interpretation				Current Sample is Line "A"						
	4u	6u	14u	20u	25u	50u	75u	100u	ISO	Normal Wear Indicated, Continue Sampling At Normal Interval									
Normal	4367	1019	97	14	20	6	0	0	19/17/14										
Normal	1350	381	42	6	8	0	0	0	18/16/13										
Custom Tests >>>>				Cutting	Sliding	Fatigue	NonMetallic	Total / ml											