















# THE EVOLUTION OF ISO CODES WITH AN FMS HYD BYPASS FILTER IN 200HRS

## EATON VICKERS



TABLE I HYDRAULIC SYSTEMS: REQUIRED NEW MACHINE CLEANLINESS

Current Machine Cleanliness (ISO)	Target	Target	Target	Target
28/26/23	25/23/21	25/22/19	23/21/18	22/20/17
27/25/22	25/23/19	23/21/18	22/20/17	21/19/16
26/24/21	23/21/18	22/20/17	21/19/16	21/19/15
25/23/20	22/20/17	21/19/16	20/18/15	19/17/14
25/22/19	21/19/16	20/18/15	19/17/14	18/16/13
23/21/18	20/18/15	19/17/14	18/16/13	17/15/12
22/20/17	19/17/14	18/16/13	17/15/12	16/14/11
21/19/16	18/16/13	17/15/12	16/14/11	15/13/10
20/18/15	17/15/12	16/14/11	15/13/10	14/12/9
19/17/14	16/14/11	15/13/10	14/12/9	14/12/8
18/16/13	15/13/10	14/12/9	13/11/8	-
17/15/12	14/12/9	13/11/8	-	-
16/14/11	13/11/8	-	-	-
15/13/10	13/11/8	-	-	-
14/12/9	13/11/8	-	-	-
Life Extension Factor	2 X	3 X	4 X	5 X



HYDRAULIC SYSTEMS AND DIESEL ENGINES

Current Machine Cleanliness	New Cleanliness Level										
	22/20/17	21/19/16	20/18/15	19/17/14	18/16/13	17/15/12	16/14/11	15/13/10	14/12/9	13/11/8	12/10
28/26/23	5	7	9	>10	>10	>10	>10	>10	>10	>10	>10
27/25/22	4	5	7	9	>10	>10	>10	>10	>10	>10	>10
26/24/21	3	4	6	7	9	>10	>10	>10	>10	>10	>10
25/23/20	2	3	4	5	7	9	>10	>10	>10	>10	>10
24/22/19	1.6	2	3	4	5	7	8	>10	>10	>10	>10
23/21/18	1.3	1.5	2	3	4	5	7	9	>10	>10	>10
22/20/17		1.3	1.6	2	3	4	5	7	9	>10	>10
21/19/16			1.3	1.6	2	3	4	5	7	9	>10
20/18/15				1.3	1.6	2	3	4	5	7	>10
19/17/14					1.3	1.6	2	3	4	5	8
18/16/13						1.3	1.6	2	3	4	6
17/15/12							1.3	1.6	2	3	4
16/14/11								1.3	1.6	2	3
15/13/10									1.4	1.8	2.5

Source: Noria Corporation, Fundamentals of Machinery Lubrication, Noria Skills Training