

## Duncan KUBOTA V3300 K1985 (S/N 2GN1985)

## **Diesel Engine**

## MOBIL 15W40 (15 LTR)

Sample lat the next service interval to monitor.      Sample Date      Client Info      V0089429      V0089424								
Sample Date      Client Info      17 Mar 220      04 Fab 2024	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample DatyClient Info17 Mer 2064 Peb 204Machine AgehrsClient InfoI2002280Ol ChangedhrsClient InfoI200240Filter AgehrsClient InfoIChangedChangedOl ChangedIClient InfoIChangedChangedInfoFilter AgehrsClient InfoIChangedChangedInfoSample StatusIInfoPartStM05662000InfoAll component wear rates are normal.IronpmStM05662000InfoNickelpmStM05662000InfoInfoInfoInfoSilverpmStM05662000Info	Resample at the next service interval to monitor.	Sample Number		Client Info		WC0894279	WC0894254	
Oil Age      hrs      Client Info      820      240	p	Sample Date		Client Info		17 Mar 2024	04 Feb 2024	
Filter Age      hrs      Client Info      NO      240		Machine Age	hrs	Client Info		23100	22280	
Oil Changed  Client Info  Changed  Chan		Oil Age	hrs	Client Info		820	240	
Filter Changed Sample Status      Client Info      Changed NORMAL		Filter Age	hrs	Client Info		200	240	
Sample Status      NORMAL      NORMAL		Oil Changed		Client Info		Changed	Changed	
WEAR      Iron      ppm      ASTM 5518(m)      >100      3      1		Filter Changed		Client Info		Changed	Changed	
All component wear rates are normal.      Chromium      ppm      ASTM25185/m      >20      0      0         Nickel      ppm      ASTM25185/m      >4      0      <1         Nickel      ppm      ASTM25185/m      >4      0      <1         Silver      ppm      ASTM25185/m      >3      0      0         Aluminum      ppm      ASTM25185/m      >3      0      0         Aluminum      ppm      ASTM25185/m      >3      0      0         Lead      ppm      ASTM25185/m      >40      0      <1         Copper      ppm      ASTM25185/m      >30      c1      <        Tin      ppm      ASTM25185/m      >1      0      <        There is no indication of any contamination in the oil.      Silicon      ppm      ASTM25185/m      >20      c1      1         Giveo      WC Method      >0      <-10      <      Silicon      Ncc      Ncc      Ncc <td< th=""><th></th><th>Sample Status</th><th></th><th></th><th></th><th>NORMAL</th><th>NORMAL</th><th></th></td<>		Sample Status				NORMAL	NORMAL	
Air component wear rates are normal.    Nickel    pm    ASTM 0586m    >44    0    <1       Titanium    ppm    ASTM 0586m    >3    0    0       Silver    ppm    ASTM 0586m    >3    0    0       Auminum    ppm    ASTM 0586m    >30    0    0       Lead    ppm    ASTM 0586m    >30    c1       Copper    ppm    ASTM 0586m    >30    c1       Tin    ppm    ASTM 0586m    >30    c1       Vanadlum    ppm    ASTM 0586m    >5    0    0       Tin    ppm    ASTM 0586m    >25    1    2       Tin    ppm    ASTM 0586m    >20    0        Wander    ppm    ASTM 0586m    >20    0        Water    WC Method    >0.2    NEG    NEG       Solt %    %    ASTM 0784th    >30    20.3    10.4	WEAR	Iron	ppm	ASTM D5185(m)	>100	3	1	
Nickel      ppm      ASTM D588(m)      >4      0      <1	All component wear rates are normal	Chromium	ppm	ASTM D5185(m)	>20	0	0	
Silver    ppm    ASTM D5165(m)    >30    0       Aluminum    ppm    ASTM D5165(m)    >20    <1    1       Lead    ppm    ASTM D5165(m)    >400    0    <1       Copper    ppm    ASTM D5165(m)    >300    <1    <1       Copper    ppm    ASTM D5165(m)    >300    <1    <1       Tin    ppm    ASTM D5165(m)    >15    0    0       Vanadium    ppm    ASTM D5165(m)    >10    0       Silicon    ppm    ASTM D5165(m)    >20    0    <1       Potassium    ppm    ASTM D5165(m)    >20    0    <1       Water    w    WC Method    >0    <1.0    <1.0       Silicol    ASTM D5165(m)    ASTM D5165(m)    >20    0.1    0       Gipcol    w    WC Method    >0    <1.0    <1.0       Silicol    ASTM D5165(m)    ASTM D5165(m) <td< th=""><th></th><th>Nickel</th><th>ppm</th><th>ASTM D5185(m)</th><th>&gt;4</th><th>0</th><th>&lt;1</th><th></th></td<>		Nickel	ppm	ASTM D5185(m)	>4	0	<1	
Aluminum      ppm      ASTM D5185(m)      >20      it      1         Lead      ppm      ASTM D5185(m)      >40      0      <1         Copper      ppm      ASTM D5185(m)      >330      <1      <1         Tin      ppm      ASTM D5185(m)      >330      <1      <1         Vanadium      ppm      ASTM D5185(m)      >15      0      0         CONTAMINATION      Silicon      ppm      ASTM D5185(m)      >20      0      <1         There is no indication of any contamination in the oil.      Silicon      ppm      ASTM D5185(m)      >20      0      <1         Water      WC Method      >0.2      NEG      NEG          Glycol      WC Method      >0.2      NEG      NEG          Solitation      Abs/cm      ASTM D784*      >3      0.1      0         Enulsified Water      scalar      Visual*      >02      Sc6		Titanium	ppm	ASTM D5185(m)		0	0	
Lead      ppm      ASTM D5185m      >40      0      <1		Silver	ppm	ASTM D5185(m)	>3	0	0	
Copper      ppm      ASTM D5185(m)      >330      <1		Aluminum	ppm	ASTM D5185(m)	>20	<1	1	
Tin      pp      ASTM D5185(m)      >15      0      0         Vanadium      pp      ASTM D5185(m)      20      0         CONTAMINATION      Silicon      pp      ASTM D5185(m)      >20      0      <		Lead	ppm	ASTM D5185(m)	>40	0	<1	
Vanadium      ppm      ATM D5185(m)      C      O      O         CONTAMINATION      Silicon      ppm      ASTM D5185(m)      >25      1      2         There is no indication of any contamination in the oil.      Potassium      ppm      ASTM D5185(m)      >20      O      <1         Fuel      WC Method      >5      <1.0      <1.0         Water      WC Method      >0.2      NEG      NEG         Glycol      WC Method      >0.2      NEG      NEG         Nitration      Abs/cm      ASTM D7844'      >3      0.1      0         Soti %      %      ASTM D7844'      >3      0.1      0         Soti %      %      ASTM D7844'      >3      0.1      0         Soti %      %      ASTM D7844'      >30      20.3      19.4         Sulfation      Abs/cm      ASTM D7845'      >0.2      NEG      NEG         FLUID CONDITION      Sodium		Copper	ppm	ASTM D5185(m)	>330	<1	<1	
CONTAMINATION      Silicon      ppm      ASTM D5185(m)      >25      1      2         There is no indication of any contamination in the oil.      Potassium      ppm      ASTM D5185(m)      >20      0      <1         Fuel      WC Method      >5      <1.0      <1.0         Water      WC Method      >0.2      NEG      NEG         Glycol      WC Method      >0.2      NEG      NEG         Soot %      %      ASTM D5185(m)      >30      0.1      0         Soot %      %      ASTM D7844'      >3      0.1      0         Soot %      %      ASTM D7155'      >30      20.3      19.4         Sulfation      Abs/Inm      ASTM D715'      >30      20.3      19.4         FLUID CONDITION      Sodium      ppm      ASTM D5185(m)      >118      <1      1         Boron      ppm      ASTM D5185(m)      >118      <1      1		Tin	ppm	ASTM D5185(m)	>15	0	0	
Potassium      ppm      ASTM D5185(m)      >20      0      <1		Vanadium	ppm	ASTM D5185(m)		0	0	
Potassium      ppm      ASTM D5185(m)      >20      0      <1		0.11						
$ \begin{array}{ c c c c c } \hline Fuel & WC Method >5 & <1.0 & <1.0 & \\ \hline Water & WC Method >0.2 & NEG & NEG & NEG & \\ \hline WC Method & >0.2 & NEG & NEG & \\ \hline NEG & NEG & NEG & \\ \hline NEG & $				. ,				
Water      WC Method      >0.2      NEG      NEG         Glycol      WC Method      NEG      NEG         Soot %      %      ASTM D7844'      >3      0.1      0         Soot %      %      ASTM D7844'      >3      0.1      0         Nitration      Abs/cm      ASTM D7624'      >20      6.7      5.6         Sulfation      Abs/tm      ASTM D7624'      >20      19.4         Emulsified Water      scalar      Visual*      >0.2      NEG      NEG         FLUID CONDITION      Sodium      ppm      ASTM D5185(m)      >118      <1         Boron      ppm      ASTM D5185(m)      >118      <1          Barium      ppm      ASTM D5185(m)      I      0      0         Marganese      ppm      ASTM D5185(m)      I      0      0         Marganesium      ppm      ASTM D5185(m)      I      0       -			ppm	. ,				
Glycol    WC Method    NEG    NEG    NEG       Soot %    %    ASTM D7844*    >3    0.1    0       Nitration    Abs/cm    ASTM D7624*    >20    6.7    5.6       Sulfation    Abs/cm    ASTM D7152*    >30    20.3    19.4       Sulfation    Abs/cm    ASTM D7151*    >30    20.3    19.4       Emulsified Water    scalar    Visual*    >0.2    NEG    NEG       Sodium    ppm    ASTM D5185(m)    >118    <1        Boron    ppm    ASTM D5185(m)    >118    <1        Barium    ppm    ASTM D5185(m)     0    0       Manganese    ppm    ASTM D5185(m)     63    59       Magnesium    ppm    ASTM D5185(m)     0    0       Manganese    ppm    ASTM D5185(m)     63    59								
Soot %    %    ASTM D7844*    >3    0.1    0       Nitration    Abs/cm    ASTM D7624*    >20    6.7    5.6       Sulfation    Abs/lm    ASTM D7145*    >30    20.3    19.4       Sulfation    Abs/lm    ASTM D7415*    >30    20.3    19.4       Emulsified Water    scalar    Visual*    >0.2    NEG    NEG       Sodium    ppm    ASTM D5185(m)    >118    <1    1       Boron    ppm    ASTM D5185(m)    >118    <1    1       Molybdenum    ppm    ASTM D5185(m)    <1    1       Manganese    ppm    ASTM D5185(m)    <1    0       Manganese    ppm    ASTM D5185(m)    <1    0       Manganese    ppm    ASTM D5185(m)    <0    0					>0.2			
Nitration    Abs/cm    ASTM D7624*    >20    6.7    5.6       Sulfation    Abs/lmm    ASTM D7624*    >30    20.3    19.4       Emulsified Water    scalar    Visual*    >0.2    NEG    NEG       FLUID CONDITION    Sodium    ppm    ASTM D5185(m)    >118    <1       Boron    ppm    ASTM D5185(m)    >118    <1        Boron    ppm    ASTM D5185(m)    >118    <1        Molybdenum    ppm    ASTM D5185(m)    >118    <1        Magnesium    ppm    ASTM D5185(m)    <1    0    0			24		0			
Sulfation    Abs/.1mm    ASTM D7415*    >30    20.3    19.4       Emulsified Water    scalar    Visual*    >0.2    NEG    NEG       FLUID CONDITION    Sodium    ppm    ASTM D5185(m)    >118    <1       Boron    ppm    ASTM D5185(m)    >10    0       Barium    ppm    ASTM D5185(m)    <10    00       Molybdenum    ppm    ASTM D5185(m)    <163    59       Manganese    ppm    ASTM D5185(m)    <100    00       Mangesium    ppm    ASTM D5185(m)    <100    00       Mangesium    ppm    ASTM D5185(m)    <100    00       Mangesium    ppm    ASTM D5185(m)    <100    00								
Emulsified Water    scalar    Visual*    >0.2    NEG    NEG       FLUID CONDITION    Sodium    ppm    ASTM D5185(m)    >118    1       The BN result indicates that there is suitable alkalinity remaining in the oil is suitable for further service.    Boron    ppm    ASTM D5185(m)    1    2    2       Barium    ppm    ASTM D5185(m)    0    0       Molybdenum    ppm    ASTM D5185(m)    63    59       Manganese    ppm    ASTM D5185(m)    0    0       Magnesium    ppm    ASTM D5185(m)    0    0								
FLUID CONDITION    Sodium    ppm    ASTM D5185(m) >118    <1								
Boron    ppm    ASTM D5185(m)    2    2      Dill The condition of the oil is suitable for further service.    Barium    ppm    ASTM D5185(m)    0    0       Molybdenum    ppm    ASTM D5185(m)    63    59       Manganese    ppm    ASTM D5185(m)    0    0       Magnesium    ppm    ASTM D5185(m)    0    0		Emuisitied water	scalar	visual	>0.2	NEG	NEG	
Barium  ppm  ASTM D5185(m)  0  0     Molybdenum  ppm  ASTM D5185(m)  63  59     Manganese  ppm  ASTM D5185(m)  0  0     Magnesium  ppm  ASTM D5185(m)  0  0	FLUID CONDITION	Sodium	ppm	ASTM D5185(m)	>118	<1	1	
Molybdenum    ppm    ASTM D5185(m)    63    59       Manganese    ppm    ASTM D5185(m)    0    0       Magnesium    ppm    ASTM D5185(m)    1032    970	The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185(m)		2	2	
Manganese      ppm      ASTM D5185(m)      0      0         Magnesium      ppm      ASTM D5185(m)      1032      970	, ,	Barium	ppm	ASTM D5185(m)		0	0	
Magnesium      ppm      ASTM D5185(m)      1032      970		Molybdenum	ppm	ASTM D5185(m)		63	59	
		Manganese	ppm	ASTM D5185(m)		0	0	
		Magnesium	ppm	ASTM D5185(m)		1032	970	
Calcium ppm Asimusika(iii) 1098 1069		Calcium	ppm	ASTM D5185(m)		1098	1069	

Phosphorus

Zinc

Sulfur

Oxidation

Visc @ 100°C

ppm

ppm

ppm

cSt

Abs/.1mm Base Number (BN) mg KOH/g ASTM D2896\*

ASTM D5185(m)

ASTM D5185(m)

ASTM D5185(m) ASTM D7414\* >25

ASTM D7279(m)

1014

1238

2613

16.0

10.63

13.4

1015

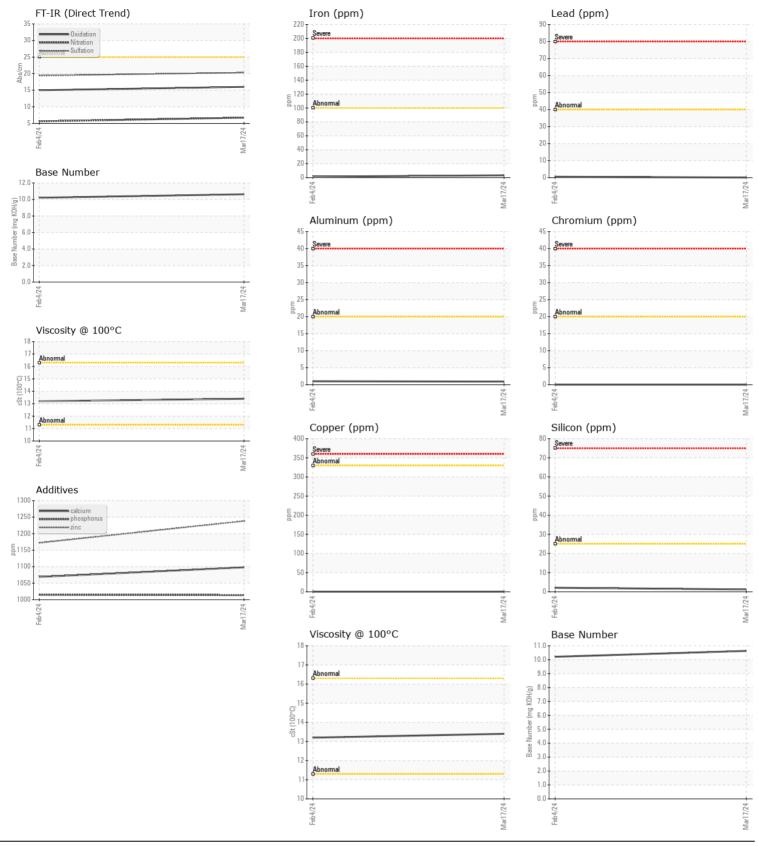
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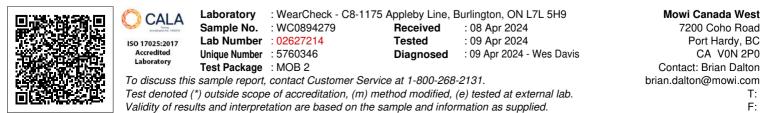
2817

15.0

10.21

13.2





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