



OIL REPORT

LAB NUMBER:
 REPORT DATE: 8/28/2018
 CODE: 20/32

UNIT ID: 15 HARLEY
 CLIENT ID:
 PAYMENT: CC: Visa

UNIT	MAKE/MODEL: Harley Davidson Twin Cam 103	OIL TYPE & GRADE: Amsoil 20W/50
	FUEL TYPE: Gasoline (Unleaded)	OIL USE INTERVAL: 9,768 Miles
	ADDITIONAL INFO: 2015 Harley Davidson	

CLIENT	
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COMMENTS Iron increased quite a bit compared to past years and shows a little more wear at steel parts than before. In terms of wear rate (ppm/mile), this level is still below average, so it's hard to get too worked up over poorly wearing steel parts. Hard use like city riding can cause iron to read a little higher than it otherwise would, so maybe that's a factor here. The other metals continue to look great next to averages, which are based on ~4,100 miles on the oil. The thick viscosity isn't a new finding for this engine. We suspect it's from heat, which is normal with these Twin Cams. Overall, still a nice report!

ELEMENTS IN PARTS PER MILLION	MI/HR on Oil	9,768	UNIT / LOCATION AVERAGES	10,000	12,130	UNIVERSAL AVERAGES
	MI/HR on Unit	99,768		49,964	13,175	
	Sample Date	8/5/2018		10/13/2017	11/8/2016	
	Make Up Oil Added	0.5 qts		0.25 qt	.5 qts	
ALUMINUM	6	7	5	11	5	
CHROMIUM	1	1	1	1	0	
IRON	29	21	14	21	13	
COPPER	11	29	13	62	15	
LEAD	0	1	0	3	3	
TIN	1	2	1	4	1	
MOLYBDENUM	72	60	61	48	121	
NICKEL	1	1	2	1	0	
MANGANESE	1	2	1	4	4	
SILVER	0	0	0	0	0	
TITANIUM	0	0	0	0	0	
POTASSIUM	2	4	0	9	2	
BORON	20	17	2	29	133	
SILICON	10	12	11	16	12	
SODIUM	5	6	5	9	21	
CALCIUM	4431	4219	4159	4066	2360	
MAGNESIUM	18	83	20	210	318	
PHOSPHORUS	1373	1242	1250	1102	1145	
ZINC	1859	1714	1687	1596	1437	
BARIUM	2	2	2	3	1	

Values Should Be*

PROPERTIES	133.7	79-100	136.4	123.1
SUS Viscosity @ 210°	133.7	79-100	136.4	123.1
cSt Viscosity @ 100°C	28.05	15.3-20.6	28.65	25.67
Flashpoint in °F	450	>385	475	420
Fuel %	<0.5	<2.0	<0.5	<0.5
Antifreeze %	-	0.0	-	-
Water %	0.0	0.0	0.0	0.0
Insolubles %	0.3	<0.6	0.3	0.3
TBN				
TAN				
ISO Code				

* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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