

Inspection Reports PAMA

PAMA is a very large mining company in Indonesia. The GF2 Formula is used in all company owned HD 785-5 Engines. The normal maintenance cycle required prior to engine re-Manufacturing occurred previously at 15,000 hours or 900,000 miles. This maintenance included replacing cylinder liners with new, expensive liners. After years of using the additive, the regular maintenance schedule was changed from 15,000 hours to 25,000 hours before total reconstruction of the engine was required. Using the additive has kept the cylinder liners within nearly identical tolerances of new liners. Enclosed are inspection reports showing measurements of a new liner and a liner with 14,887 hours of run time. Tolerances are within 'new' specifications. This , along with cleanliness of the engine, has saved PAMA millions of dollars in maintenance

		31					****						harry Law									-					-			-	2
: 54121140	: 13912	: Flo unten	: 20 duli 2007		>		(-		.x \)-		Λ,		CYLINDRICITY	0.08	is and	ANIONE														
ENGINE MODE	SERIAL NUMBER	MECHANIC	DATE	TATED	INER	والمعاودة المعاملية		1				i trad	ule M	CM	R LUMIT	9	M.	2	22	R3	R4	RS	R6		П	77	2	2	15	97	77
5-5	: 45.89	14,887	(x604044	CVI INDEP 1 INEP	HINDER L		Liner Protrusion							ROUNDNESS	0.03	ACCELLAT	ACIORL											The state of the s			
			"	20	3		Τ,	3	5	rano,	1	"d"	,	R	R LIMIT	5	2	33	R2	R3	R4	R5	Re		-	27	2	L4	53	97	17
UNIT MODEL	SERIAL NUMBER	LIFE TIME	WO NO.	(d 1 2)		-			7	DETAIL "P"		ON OF CYL, LINER	0.07 - 0.15	T	ACIONE			,											
PT. PAMAPERSADA NUSANTARA COMEXSHOP DEPARTMENT			1	N N N N N N N N N N N N N N N N N N N		ED	S. S	O V	Lan.		N.	PROTUTION	STO	9	.Cu	R	R2	R3	R4	85	RG		רו	12	13	L4	12	97	17		
				40		32 140,035	050 140,040															1	I								
Δ	•	23.600	COM		ID. CYLINDER LINER	140 + 0.040	E E	140'032 HO'032	140,040 140,050 140,040,041	-		-	-	_	The state of the s			The second second	0.000				+		1			-			
W	S S	NO	(80 Jo		ID. CYLIN	STANDARD		-	T	X-X	Y-Y	x-x	۲-۲	× :	Y-Y	x-x	Y-Y	X-X	Y-Y		×-×	۲-۲	X-X-X	× ×	× × ×	X-X	×-×	X-X	Y-Y	×-×	٧-٢
OA: S	MEASSURE & INSPECTION SHEET (04 of 08)				STAN		£.	+	R2		R3	1	R.4		RS		R6	-		7		7		23		3	\dagger	5	+	0,1	

		13	2 1	rzy.										-																		201
3412VIA		FILO WATTO	and the same	: 20 JUN 2007		>	×	-(× \)-		٨,		CYLINDRICITY	0.08		ACTUAL											And the state of t	The state of the s		
ENGINE MODEL	SERIAL NUMBER	VICT STANIS	SINNE	ш	C E	EK		ioi	2900	×	Printers, St. St.			game?	3	R I liarT		NO.	Æ	22	253	R4	R5	Re		2	12	ខា	1.4	15	97	17
ODEL : HD 785-5 ENG	SER	NEW Const		DATE	and the state of t	CYLINDER LINER		Liner Profrusion							ROUNDNESS	0.08		ACTUAL														
1:	SER		-		1	CX		-	K	>	***	1	TAPTAIT 400	1 71	RC	Timit	The market	Ç.	R1	R2	R3	R4	RS	RB		17	12	23	14	15	97	17
UNIT MODEL	SERIAL NUMBER	Distraction in	NY CHE LIME	WO NO.	(1)	7	8				Tac	DEAD.	PROTUTION OF CYL, LINER	0.07-0.45	2000	ACTUAL						of Applican			The state of the s		-			
EDGADA	EKSADA	AKA	RDA DTM	ALL PART LIVE	And the second s	1	104 CS	-	720		PSP 1	1		22	PROTUTION	uls.	200	Ŋ.	R1	R2	R3	R4	R5	Re		17	12	23	17	1.5	91	1.7
DY DALAAD	FI. FAMAFERSADA	NUSANIAKA	COMEXCHOP DEPARTMENT	TO TOTAL OF THE PARTY OF THE PA		ID. CYLINDER LINER	140 + 0.040	A B C	140,030 140,030 140,035	140,030 140,030 140,030																						
W	2	URE&	CITION	04 of 08)		ID. CYLIN	STANDARD	-	X-X 14		×××	۲۰۲	×-×	۲-۲	×·×	Y-Y	×-×	۲۰۲	×·×	۲-۲		×-×	۲-۲	x-x	۲.۲	x-x	7-7	X-X >	- 5	×-×-	×-×	Y-Y
C	MEASSURE & INSPECTION SHEET (04 of 08)					S		ă		R2		ŝ		R4		R5		R8			-		77		13		7		LS	0.		