



SCOTE Hardware Marking March 31, 2017

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Piston, Ring, Liner Part Numbers

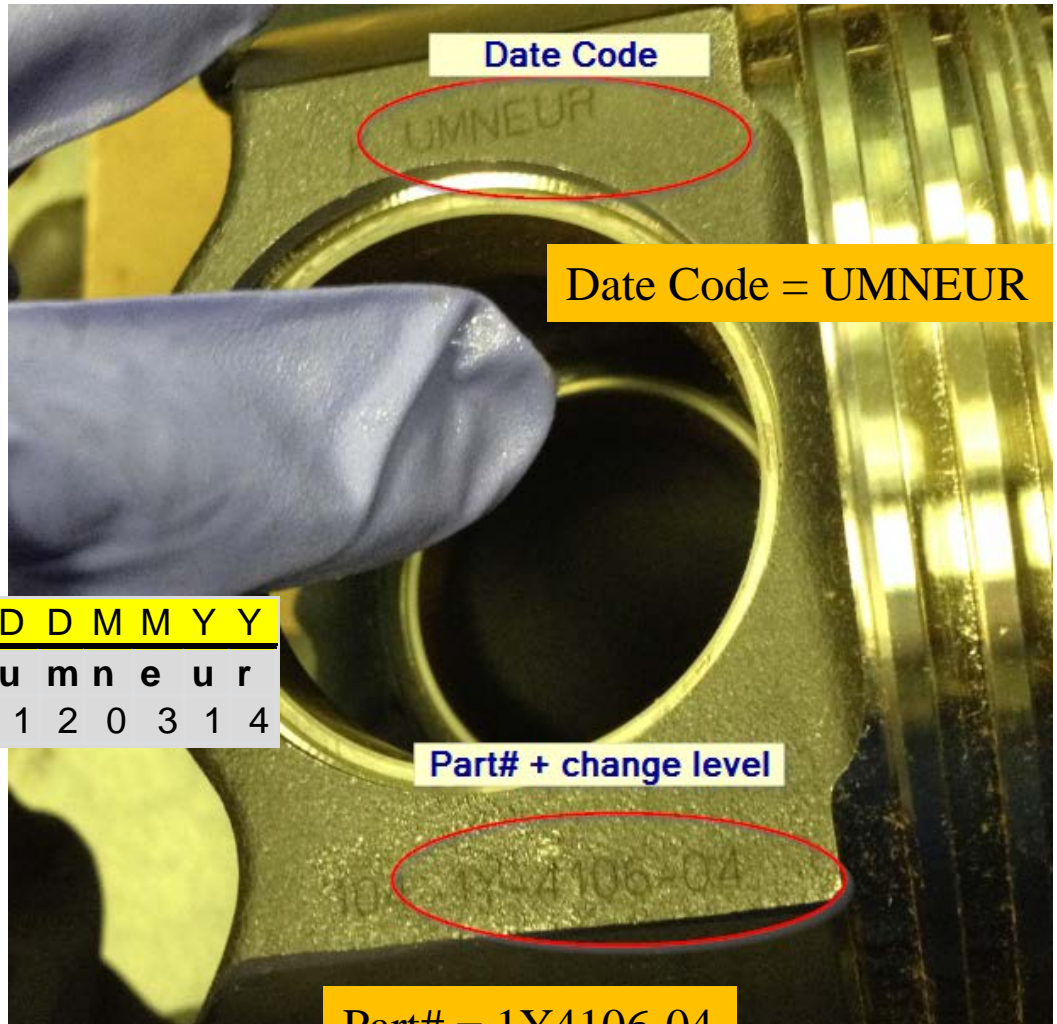
Oil Test Engine Parts					
ASTM Test	D6750 1K	D6750 1N	D6681 1P	D6923 1R	D7549 C13
Arrangement	1Y0540	1Y0540	1Y3700	E455	1Y4100
Liner	1Y3998	1Y3998	1Y3997	1Y3997	1Y4107
Piston	1Y0727	1Y0727	1Y3400	1Y4016	1Y4106
Skirt	na	na	1Y3659	1Y4015	na
Top Ring	1Y3506	1Y3506	1Y3802	1Y4014	1Y4108
2nd Ring	1Y3507	1Y3507	1Y3803	1Y4013	1Y4109
Oil Ring	1Y3508	1Y3508	1Y3804	1Y4012	1Y4110
Ring Kit	1Y0728	1Y0728	na	na	na



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C13 Piston Part Number Identification

See the following date code and part# information on the C13 steel piston. The date code is the **NUMERALKOD** utilized by CAT to trace the date of manufacture.



NUMERALKOD Translation into Date	D	D	M	M	Y	Y
Enter NUMERALKOD HERE ->>>>	u	m	n	e	u	r
Resultant Date Code	1	2	0	3	1	4

N	U	M	E	R	A	L	K	O	D
0	1	2	3	4	5	6	7	8	9

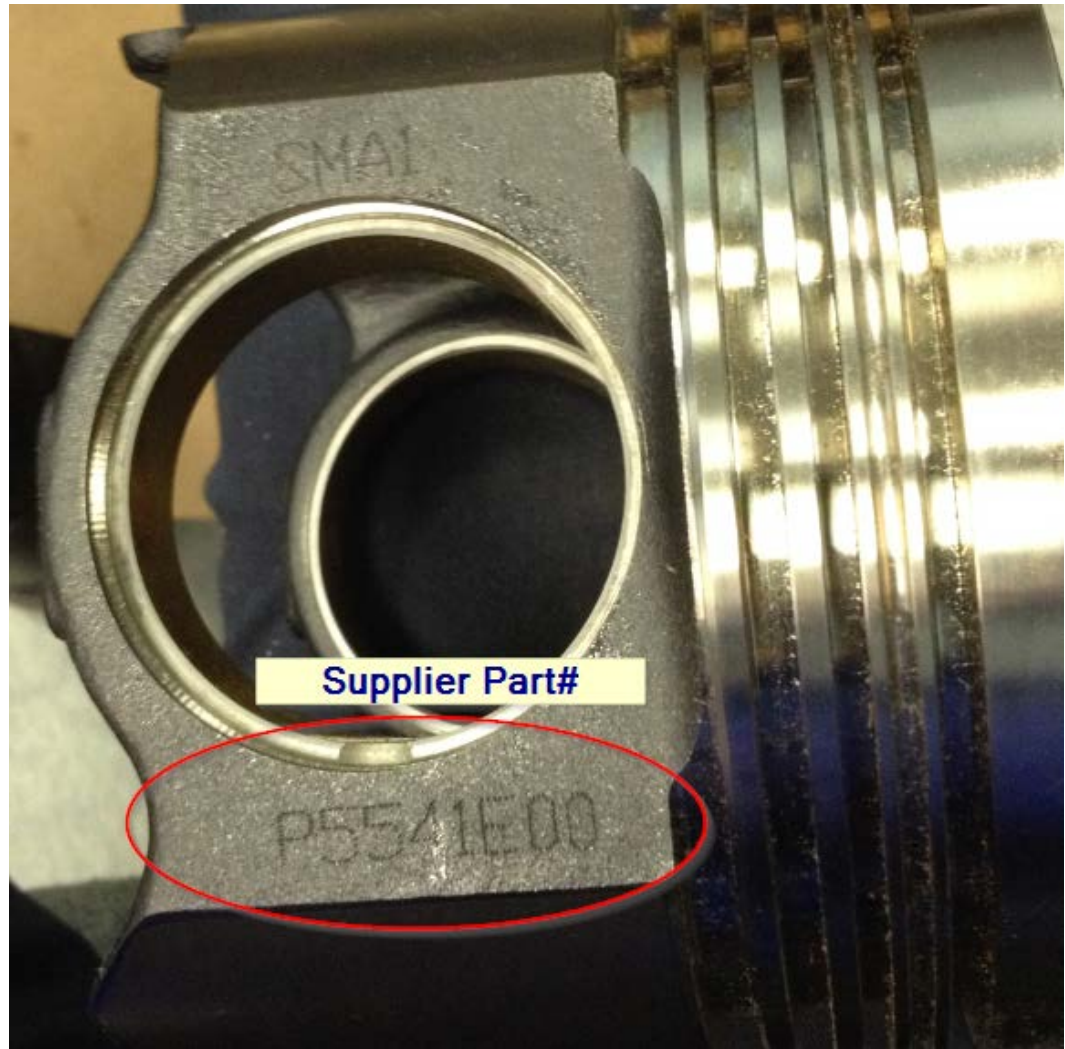


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C13 Piston Part Number Identification

This is the supplier part number.

QR codes may be option for C13 piston



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Ring Part Number Identification

Ring batch code.

Rings are marked individually with laser marking on the ring top flank

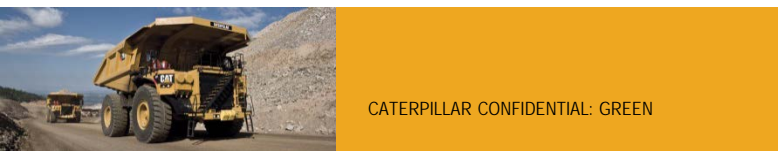


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C13 liner identification

- Liner identification is dot matrix etched on the bottom of the liners.
 - Hard to read: need a solution
 - Cat: will look into laser etching to allow ease of identification for tracking
 - Look for options to make the identification easy to read: QR code?
 - QR codes may be option for C13 piston



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Current issue

Need to document the best method for the date codes and to be consistent with all the oil test labs. The current test database has very inconsistent data.

1N Test Engine LTMS database

LINERPN	LINERSN	LINERDC	LINERIC	PISTPN	PISTSN	PISTDC	PISTIC	RINGPN	RINGDC	RINGIC
1Y3998	D09M06Y16P47	3	139 5	1Y0727	D07M10Y16P47	2136	1225	1Y0728	X01	B520
1Y-3998	N/A	D04M06Y15P47	N/A	1Y-0727	10515	615	1225	1Y-0728	714	B444
1Y-3555G	N/A	D13M06Y14P47	N/A	1Y-0727	31913	114	1225	1Y-0728	310714A8871L	B419
1Y-3998	N/A	D09M12Y15P47	N/A	1Y-0727	10515	615	1225	1Y-0728	714	B320
1Y3998	6-65171	D09M06Y16P47	03-139	1Y0727	90615	10515	1225	1Y0728	310714	N/A
1Y-3998	D13M06Y14P47	N/A	N/A	1Y-0727	D24M01Y14P47	1225M3191300	N/A	1Y-0728	080612A8871L	A963
1Y3998	D13M06Y14P47	N/A	N/A	1Y0727	D24M01Y14P47	1225M2561202	N/A	1Y0728	080612A8871L	A975
1Y-3998	N/A	D09M12Y15P47	N/A	1Y-0727	31913	615	1225	1Y-0728	113	B238
1Y-3998	N/A	D24M08Y15P47	N/A	1Y-0727	10515	615	1225	1Y-0728	714	B259
1Y-3998	N/A	D04M06Y15P47	N/A	1Y-0727	31913	615	1225	1Y-0728	714	B272
1Y3998	566017	D09M12Y15P47	03-0329	1Y0727	60915	310714	1225	1Y0728	253	N/A
1Y3998	D04M06Y15P47	N/A	N/A	1Y0727	D09M06Y15P47	256	1225	1Y0728	X01	B290
1Y3998	65861	DYM06Y15P47	03-232	1Y0727	60915	733	1225	1Y0728	310714	N/A
1Y3998	D05M09Y14P47	N/A	N/A	1Y0727	D09M06Y15P47	1444	1225	1Y0728	X01	B297
1Y-3998	N/A	D04M06Y15P47	N/A	1Y-0727	31913	114	1225	1Y-0728	712	13228
1Y-3998	N/A	D21M07Y14P47	N/A	1Y-0727	31913	114	1225	1Y-0728	113	B234



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LTMS - code

LINERPN	C \$12.	LINER PART NUMBER
LINERSN	C \$12.	LINER SERIAL NUMBER
LINERDC	C \$12.	LINER DATE CODE
LINERIC	C \$12.	LINER INSPECTION CODE
PISTPN	C \$12.	PISTON PART NUMBER
PISTSN	C \$12.	PISTON SERIAL NUMBER
PISTDC	C \$12.	PISTON DATE CODE
PISTIC	C \$12.	PISTON INSPECTION CODE
RINGPN	C \$12.	RING SET PART NUMBER
RINGDC	C \$12.	RING SET DATE CODE
RINGIC	C \$12.	RING SET INSPECTION CODE



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LINERBDC – Date code on box label (14 characters)

Liner Markings

LINERPN (Include dash, dash change level)
-3998-03

EC LVL

CAT TRADEMARK

LINER DC (ddd/365)
Example: 133rd day of
365

LINERDC (Ex. 133-6)

LINER DC (Y)
Example: 6 is 2016

LINERSN – “Sequence number”
Sequential number
0-99999



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These pistons are not serialized
but have a date + time stamp.

Piston Markings

- MAHLE PLANT (12) INSPECTION CODE (25)
M – MAHLE TRADEMARK
- PISTON DATE CODE (DDD YY) (349 13)
- PRODUCTION TIME (HH MM)

PISTPN – EC LVL

PISTPN (Ex. 1Y0727-02)

label)



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Piston Markings II

These are casting dates not machining dates! Common castings are used for multiple machined parts.

SIMILAR P/N
TO PRODUCTION P/N

HAS BEEN REMOVED
ON CURRENTLY.

CAT STD TRACEABILITY OF
FOUNDRY
CAT 1E0015



From : CAT 1E0015

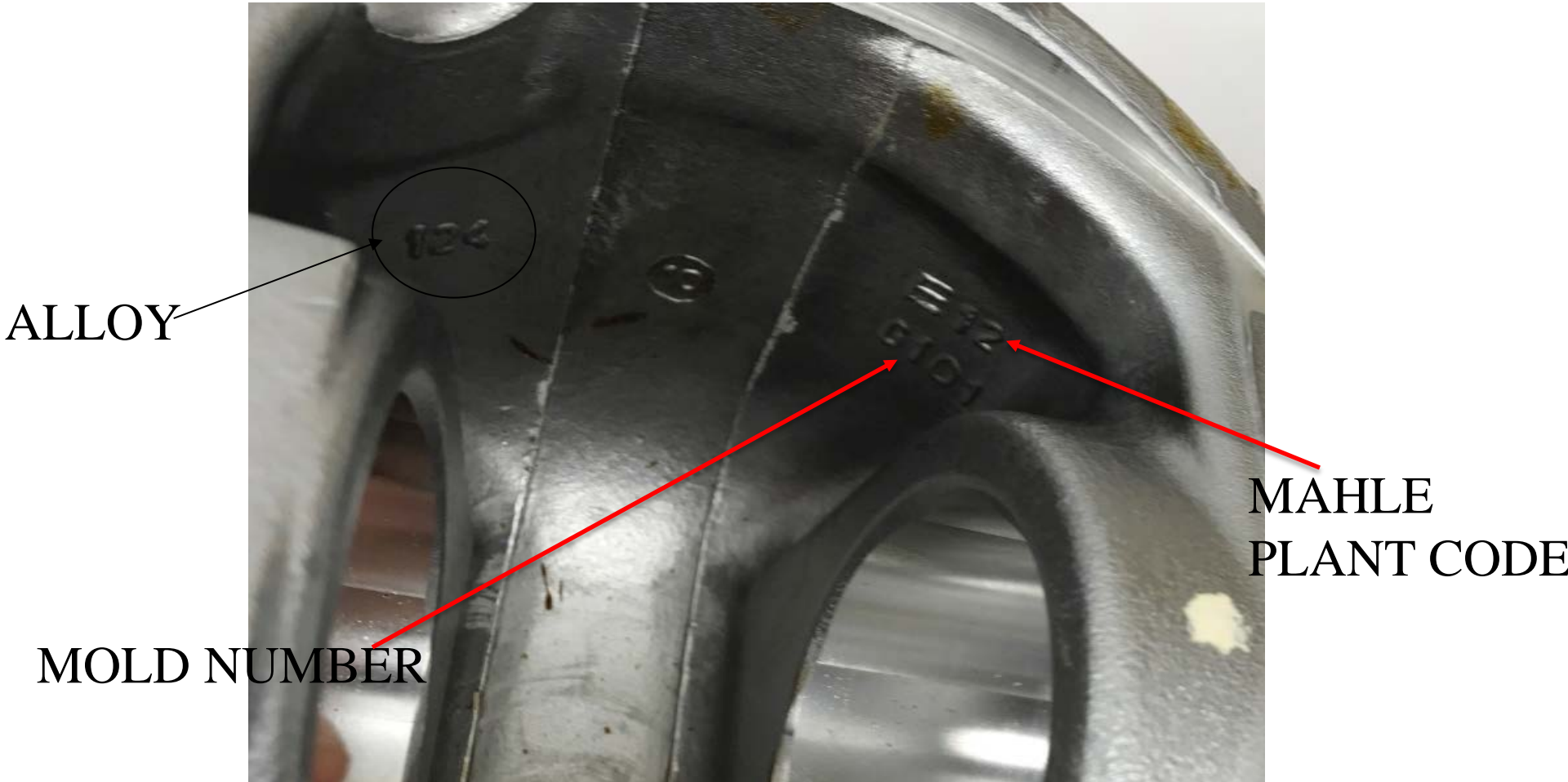
0 1 2 3 4 5 6 7 8 9
N U M E R A L K O D



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Piston Markings III

These are casting dates not machining dates! Common castings are used for multiple machined parts.



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Common castings are used for multiple machined parts.

Piston Markings IV

137 BORE – CASTING NUMBER



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Ring Markings

RINGDC
RINGIC

C \$12.
C \$12.

RING SET DATE CODE
RING SET INSPECTION CODE



SERIAL NUMBER
RINGSN (Ex. B431)

UP / UP-1 MARKING
FOR TOP OF RING

RINGSC (Ex. T)
T – SUPPLIER CODE

RINGBDC – Date code from box label

RINGPN (Ex. 1Y-3506-

PART NUMBER – EC
LVL

