

E/TYPE.

P/NAME. CYLINDER LINER

JIS B 0601-2001

June 07, 2021

Parameter

SJ-310 ホーニングマシーン

NO.001101208 型式 CVA-1500RC SERIAL NO.12493

Surface Roughness Condition. (表面粗さ)



Existing condition: Lacquering was formed on piston ring moving surfaces and not enough oil sump grooves and occurred hard touching part on axial direction.
修正前 リング摺動面、油溜りが無くなり、縦方向に局部的な当り発生。



Ra : 0.20 μ m

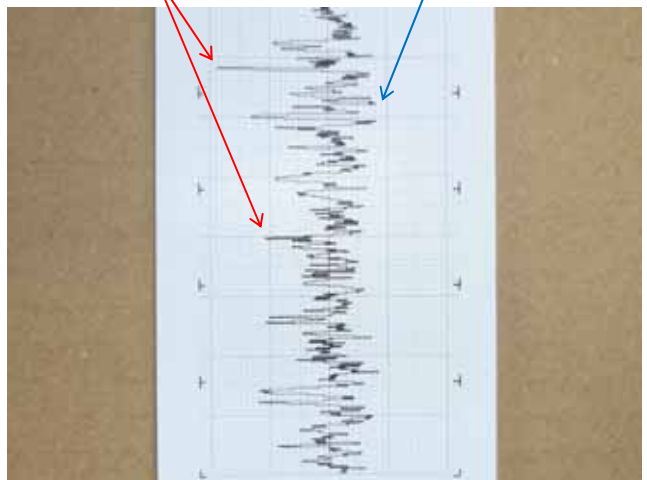
RzJIS : 1.05 μ m

Standard : RzJIS 3 ~ 7 μ m

Oil reservoir. 油溜まり	Piston ring sliding surface. ピストンリング摺動面
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After honed liner.
ホーニング完成後



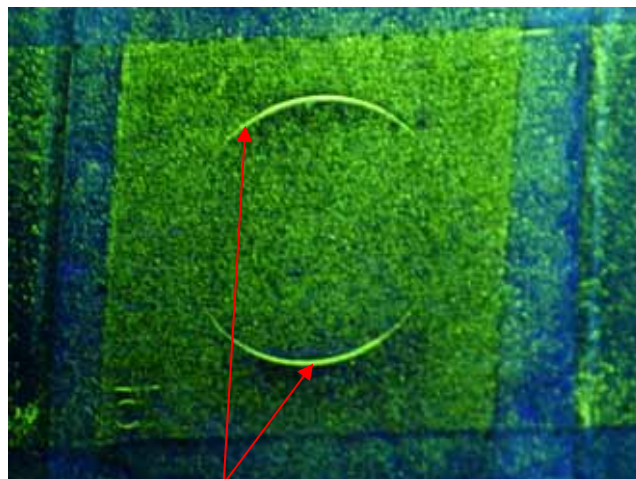
Ra : 1.55 μ m

RzJIS : 6.94 μ m



A-type test piece for check equipment.

磁気探傷検査 機材確認用 A 形標準試験片(テストピース)



Found crack.

テストピース クラック確認

Magnaflux Inspection Component

Model of Magnaflux Unit (磁気探傷器名称) Um-3BF 電子磁気工業(株) NO.1250111086

Model of Ultraviolet Unit (紫外線照射装置名称) LB-104 電子磁気工業(株) NO.0145

Method (磁化方法) Yoke (極間法)

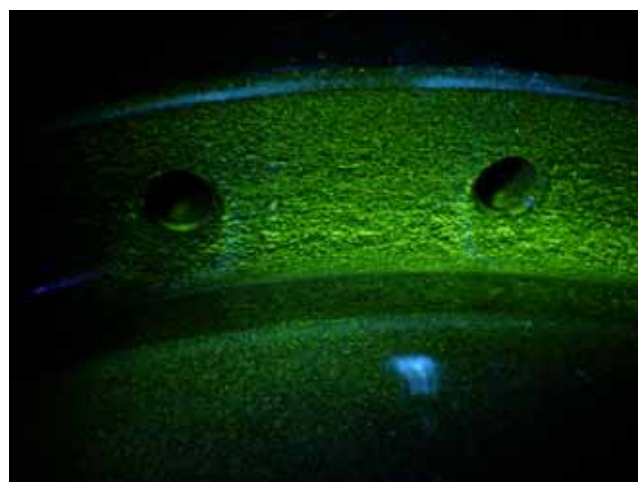
Model of A-type test piece (A 形標準試験片) JIS Z 2320-1:2007 A1-15/50

Examiner (検査技術者) Yosuke Kimura (木村 洋介)

License NO. JIS Z 2305(ISO 9712) N10090923



Example of crack: The crack occurred at under of the liner mounting surface.
ライナー錨下クラック発生見本



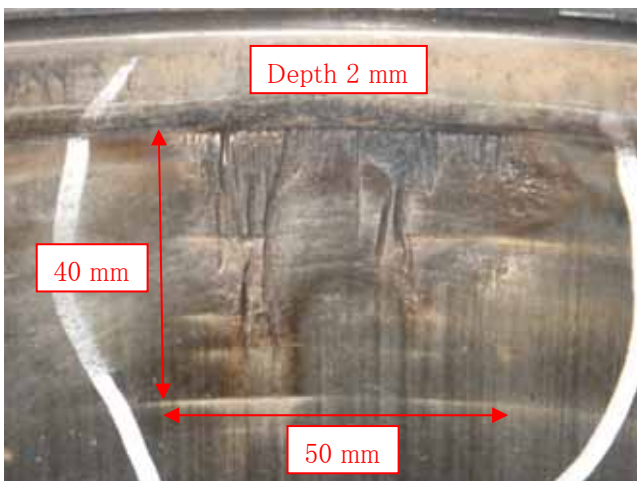
Inspected 2 pcs not found crack.
検査対象 2 本 欠陥磁粉模様無し
NO. ㊸M210, ㊸M216



Arrival of goods condition. 2 PCS 受入



NO.ⓄM210 Poor Conditions specially no uniform touching with Liner and piston ring. 内面当たり不良



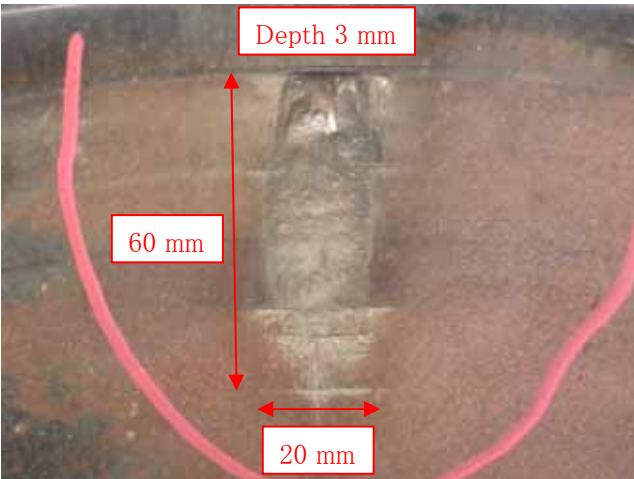
Blow by and wear. 吹き抜け及び摩耗



NO.ⓄM210 Blow by part laser welding. 吹き抜け傷部 レーザー溶接肉盛



NO.ⓄM216 Poor Conditions specially no uniform touching with Liner and piston ring. 内面当たり不良



Blow by and wear. 吹き抜け及び摩耗



NO.ⓄM216 Blow by part laser welding. 吹き抜け傷部 レーザー溶接肉盛



Bore gauge set up. 基準ゲージにて0 設定



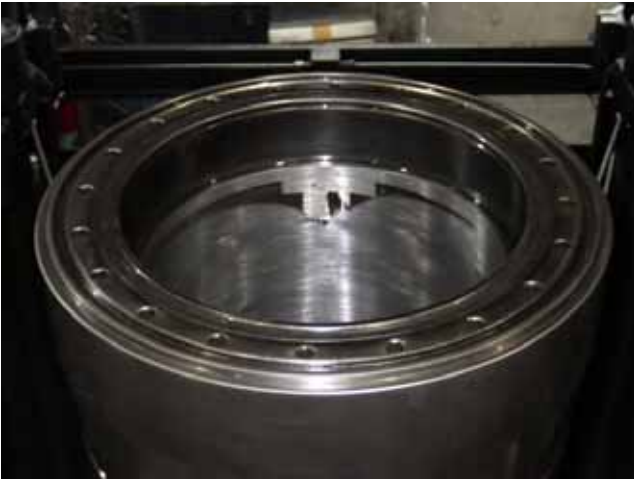
Housing measurement. 内径計測



Setting. 機械にセッティング



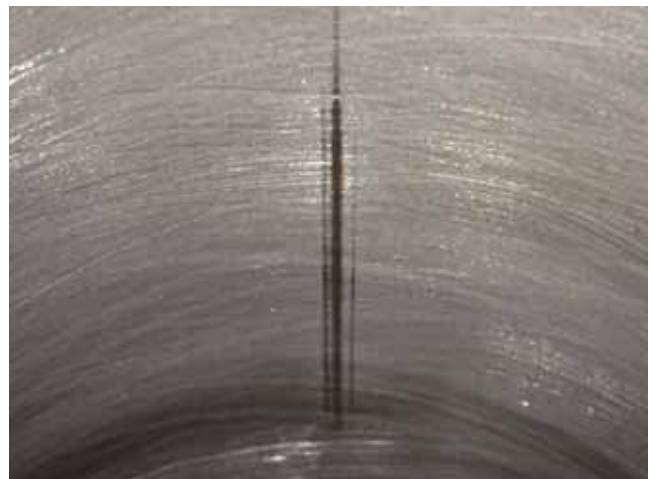
Liner Honing. ホーニング加工



NO.㊦M210 Progress of the Liner Honing. ホーニング途中



NO.㊦M216 Progress of the Liner Honing. ホーニング途中





Finished liner honing. ホーニング加工完成



NO.®M210 Finished liner honing. ホーニング加工完成



NO.®M216 Finished liner honing. ホーニング加工完成



Before cleaning. 掃除洗淨前



Before cleaning cooling water hole. 冷却水孔 洗淨前





High pressure cleaning. 高压洗净





After cleaning. 掃除洗淨後



After cleaning cooling water hole. 冷却水孔 洗淨後





After coating. 外周塗装、完成



Applied corrosion inhibitor. 防錆剤塗布



Packing. 梱包



Packing finished. 梱包完成