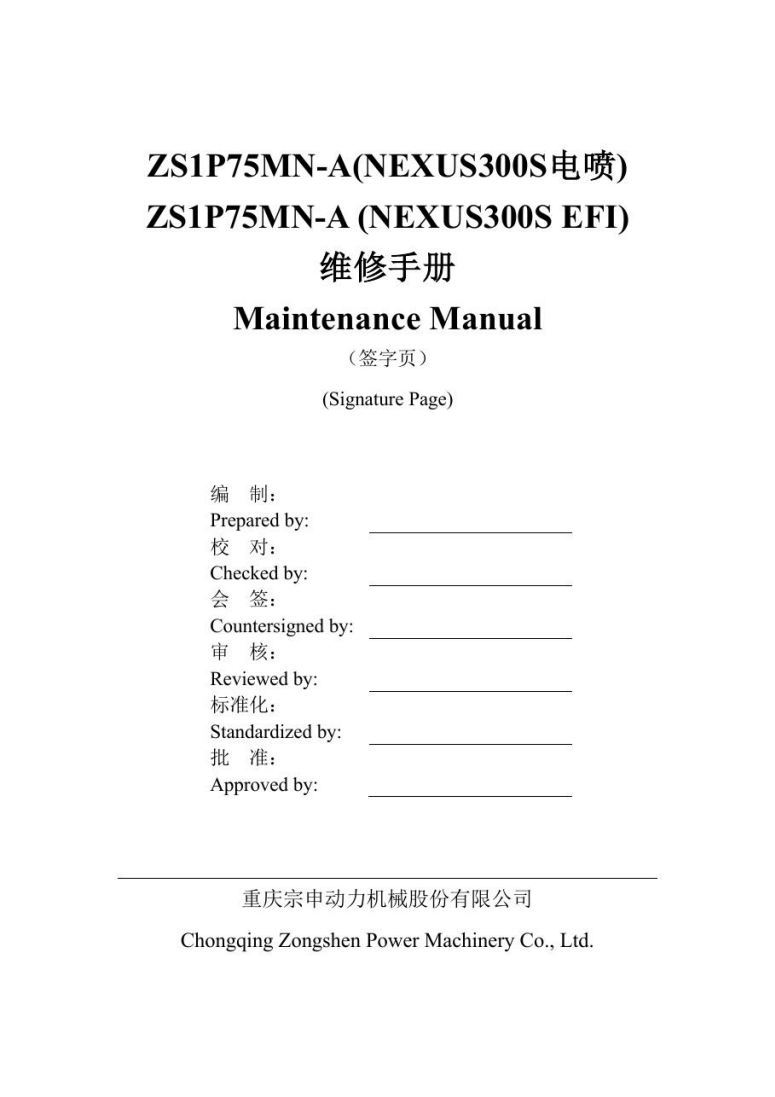
PRIJEVOD S ENGLESKOG + ORIGINALNE ILUSTRACIJE

ITALJET

Italjet Dragster 300 – motor

Servisni priručnik (HR). Svaka stranica sadrži snimku izvorne stranice (fotografije/sheme) i hrvatski prijevod teksta.

TEMBO d.o.o. · Uvoznik za Hrvatsku i Sloveniju
U slučaju razlika mjerodavan je izvorni Italjet priručnik.



ZS1P75MN-A(NEXUS300S电喷)
ZS1P75MN-A (NEXUS300S EFI)
维修手册
Maintenance Manual
（签字页）
(Signature Page)

编　制：
Prepared by: _____
校　对：
Checked by: _____
会　签：
Countersigned by: _____
审　核：
Reviewed by: _____
标准化：
Standardized by: _____
批　准：
Approved by: _____

重庆宗申动力机械股份有限公司
Chongqing Zongshen Power Machinery Co., Ltd.

Izvorna stranica (EN) · 1

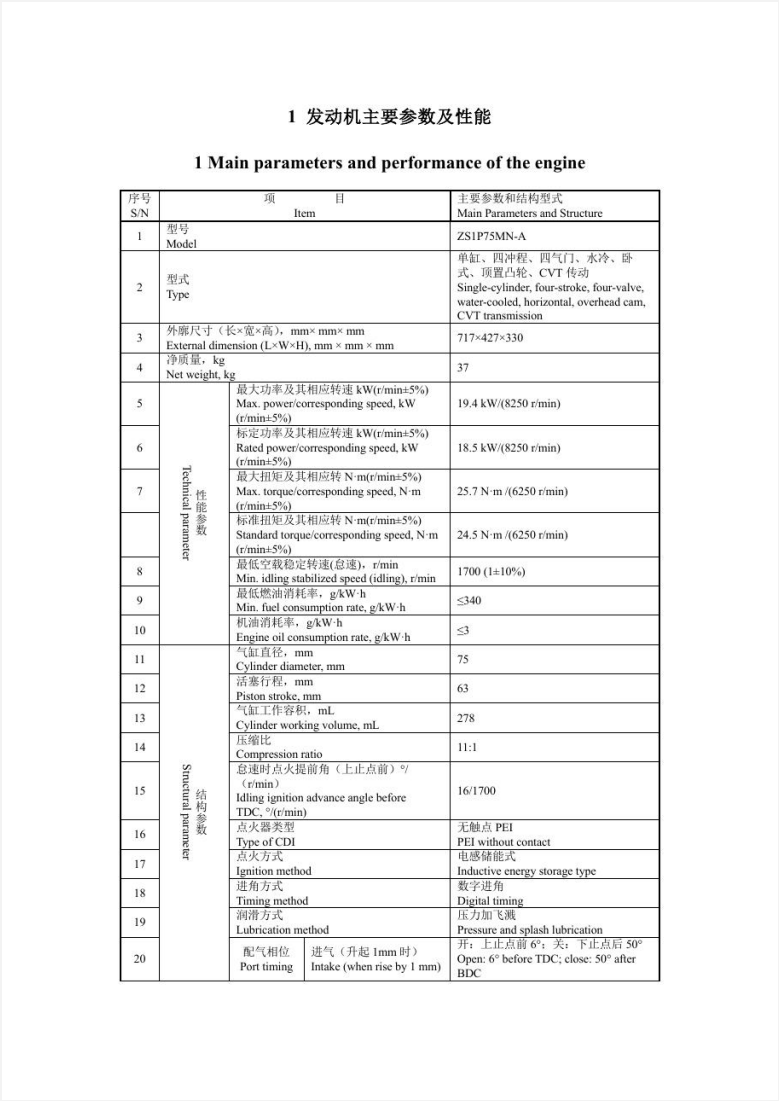
ZS1P75MN-A (NEXUS300S EFI)

Priručnik za održavanje

(Stranica za potpise)

- Izradio:
- Provjerio:
- Supotpisan:
- Pregledao:
- Standardizirao:
- Odobrio:

Chongqing Zongshen Power Machinery Co., Ltd.



1 发动机主要参数及性能

1 Main parameters and performance of the engine

序号 S/N	项目 Item		主要参数和结构型式 Main Parameters and Structure
1	型号 Model		ZS1P75MN-A
2	型式 Type		单缸、四冲程、四气门、水冷、卧式、顶置凸轮、CVT 传动 Single-cylinder, four-stroke, four-valve, water-cooled, horizontal, overhead cam, CVT transmission
3	外廓尺寸（长×宽×高），mm× mm× mm External dimension (L×W×H), mm × mm × mm		717×427×330
4	净质量，kg Net weight, kg		37
5	性能参数 Technical parameter	最大功率及其相应转速 kW(r/min±5%) Max. power/corresponding speed, kW (r/min±5%)	19.4 kW/(8250 r/min)
6		标定功率及其相应转速 kW(r/min±5%) Rated power/corresponding speed, kW (r/min±5%)	18.5 kW/(8250 r/min)
7		最大扭矩及其相应转 N·m(r/min±5%) Max. torque/corresponding speed, N·m (r/min±5%)	25.7 N·m /(6250 r/min)
		标准扭矩及其相应转 N·m(r/min±5%) Standard torque/corresponding speed, N·m (r/min±5%)	24.5 N·m /(6250 r/min)
8		最低空载稳定转速(怠速)，r/min Min. idling stabilized speed (idling), r/min	1700 (1±10%)
9		最低燃油消耗率，g/kW·h Min. fuel consumption rate, g/kW·h	≤340
10		机油消耗率，g/kW·h Engine oil consumption rate, g/kW·h	≤3
11	结构参数 Structural parameter	气缸直径，mm Cylinder diameter, mm	75
12		活塞行程，mm Piston stroke, mm	63
13		气缸工作容积，mL Cylinder working volume, mL	278
14		压缩比 Compression ratio	11:1
15		怠速时点火提前角（上止点前）°/（r/min） Idling ignition advance angle before TDC, °/(r/min)	16/1700
16		点火器类型 Type of CDI	无触点 PEI PEI without contact
17		点火方式 Ignition method	电感储能式 Inductive energy storage type
18		进角方式 Timing method	数字进角 Digital timing
19		润滑方式 Lubrication method	压力加飞溅 Pressure and splash lubrication
20		配气相位 Port timing / 进气（升起 1mm 时） Intake (when rise by 1 mm)	开：上止点前 6°；关：下止点后 50° Open: 6° before TDC; close: 50° after BDC

Izvorna stranica (EN) · 2

1 Glavni parametri i performanse motora

R.br.	Stavka	Glavni parametri i tip konstrukcije
1	Model	ZS1P75MN-A
2	Tip	Jednocilindarski, četverotaktni, četveroventilski, vodeno hlađen, vodoravni, bregasta osovina u glavi (OHC), CVT prijenos
3	Vanjski dimenzije (D×Š×V), mm × mm × mm	717×427×330
4	Neto masa, kg	37
5	Maks. snaga / odgovarajući broj okretaja, kW (r/min±5%)	19.4 kW/(8250 r/min)
6	Nazivna snaga / odgovarajući broj okretaja, kW (r/min±5%)	18.5 kW/(8250 r/min)
7	Maks. moment / odgovarajući broj okretaja, N·m (r/min±5%)	25.7 N·m /(6250 r/min)
	Standardni moment / odgovarajući broj okretaja, N·m (r/min±5%)	24.5 N·m /(6250 r/min)

R.br.	Stavka	Glavni parametri i tip konstrukcije
8	Najniži stabilni broj okretaja u praznom hodu (idle), r/min	1700 (1±10%)
9	Najniža potrošnja goriva, g/kW·h	≤340
10	Potrošnja motornog ulja, g/kW·h	≤3
11	Promjer cilindra, mm	75
12	Hod klipa, mm	63
13	Radni volumen cilindra, mL	278
14	Omjer kompresije	11:1
15	Kut predpaljenja u praznom hodu (prije GMT), °/(r/min)	16/1700
16	Tip CDI / paljenja	PEI bez kontakata
17	Način paljenja	Induktivno skladištenje energije
18	Način određivanja vremena (timing)	Digitalni timing
19	Način podmazivanja	Podmazivanje tlakom i prskanjem
20	Faze razvodnika — usis (pri usponu 1 mm)	Otvaranje: 6° prije GMT; zatvaranje: 50° nakon DMT

			排气（升起 1mm 时） Exhaust (when rise by 1 mm)	开：下止点前：41°；关：上止点后 2° Open: 41° before TDC; close: 2° after BDC
21	燃油供油型式 Fuel supply type			ECU 控制燃油泵精确喷油 ECU controls the fuel pump for precise fuel injection.
22	燃油混合比(针对二冲程发动机) Fuel mixing ratio (for two-stroke engines)			/
23	冷却液型号(针对水冷发动机) Coolant type (for water-cooled engines)			/
24	气门间隙（冷机状态），mm Valve clearance (cold), mm			进： 0.10±0.02；排：0.15±0.02 Inlet: 0.10±0.02; outlet: 0.15±0.02
25	传动装置 Drive device	变速器型式 Transmission type		无级变速加固定啮合 Stepless speed change and constant mesh
26		离合器型式 Clutch type		干式离心式 Centrifugal and dry type
27		初级减速比 Primary reduction ratio		/
28		各档位传动比 Gear ratio of each gear	一档 First gear	
			无极变速比 Stepless gear ratio	固定速比 Fixed gear ratio
			0.815−2.3	6.818
29	起动方式 Start-up method			电起动 Electrical start-up
序号	项 目 Item			主要参数和结构型式 Main Parameters and Structure
30	燃油与润滑油 Fuel and the lubricating oil	汽油牌号 Gasoline grade		与≥RQ90 型号等效（GB 17930） Equivalent to the model ≥ RQ90 (GB17930)
31		润滑油牌号 Lubricating oil grade		曲轴箱：SAE SJ 5W/40 型号或等效（GB 11121） Crankcase: SAE SJ 5W/40 or equivalent (GB11121) 传动箱：GL-5 80W/90 型号或等效（GB 11121） Transmission case: GL-5 80W/90 or equivalent (GB11121)
32		润滑油总容量，mL Total volume of lubricating oil, ml		曲轴箱：1300 传动箱：250 Crankcase: 1300 Transmission case: 250
33	配套附件 Accessories	化油器型号、型式 Model and type of carburetor		/
34		磁电机型号、型式 Model and type of magneto		与图纸标明型号等效 Equivalent to the model indicated on the drawing
35		点火线圈型号、型式 Model and type of ignition coil		与图纸标明型号等效 Equivalent to the model indicated on the drawing
36		火花塞型号、型式 Model and type of spark plug		与 NGK CR8EKB 火花塞型号等效 Equivalent to NGK CR8EKB spark plug
37		润滑油泵型式 Lubricating oil pump type		与摆线转子式强制润滑油泵型号等效 Equivalent to cycloid rotor type forced lubricating oil pump model
38		起动电机型式 Starting motor type		直流永磁、0.45KW 起动电机 DC permanent magnet, 0.45 kW starting motor

Izvorna stranica (EN) · 3

R.br.	Stavka	Glavni parametri i tip konstrukcije
	Ispuh (pri usponu 1 mm)	Otvaranje: 41° prije DMT; zatvaranje: 2° nakon GMT
21	Tip opskrbe gorivom	ECU upravlja pumpom goriva radi preciznog ubrizgavanja
22	Omjer miješanja goriva (za dvotaktne motore)	/
23	Tip rashladne tekućine (za vodeno hlađene motore)	/
24	Zazor ventila (hladan motor), mm	Usis: 0.10±0.02; ispuh: 0.15±0.02
25	Tip mjenjača	Beskoračna promjena brzine i stalni zupčani spoj
26	Tip spojke	Suha centrifugalna
27	Primarni redukcijski omjer	/
28	Prijenosni omjeri	Beskoračni omjer: 0.815−2.3; fiksni omjer: 6.818
29	Način pokretanja	Električno pokretanje
30	Vrsta benzina	Ekvivalent modelu ≥ RQ90 (GB17930)

R.br.	Stavka	Glavni parametri i tip konstrukcije
31	Vrsta ulja za podmazivanje	Karter: SAE SJ 5W/40 ili ekvivalent (GB11121); prijenosna kutija: GL-5 80W/90 ili ekvivalent (GB11121)
32	Ukupan volumen ulja, ml	Karter: 1300; prijenosna kutija: 250
33	Model i tip rasplinjača	/
34	Model i tip magneta	Ekvivalent modelu naznačenom na crtežu
35	Model i tip zavojnice paljenja	Ekvivalent modelu naznačenom na crtežu
36	Model i tip svjećice	Ekvivalent svjećici NGK CR8EKB
37	Tip uljne pumpe	Ekvivalent prisilnoj uljnoj pumpi s cikloidnim rotorom
38	Tip starter-motora	DC trajni magnet, starter-motor 0.45 kW

2 发动机保养维修

2 Engine maintenance and repair

定期检查和调节

Regular inspection and adjustment

火花塞检查

Check of spark plug

1. 拆下：

1. Remove:

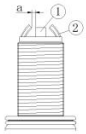
- 火花塞接头。
  Spark plug connector.
- 火花塞。
  Spark plug.

注意：拆卸火花塞之前，要用压缩空气吹净周围污物，防止落入发动机中。

Note: Before removing the spark plug, clean the surrounding dirt with compressed air to prevent dirt from falling into the engine.

2. 检查：

2. Check:



- 火花塞类型
  Model of the spark plug

不正确=>**更新**。

Nonstandard => **Replace**.

标准火花塞：NGK CR8EKB

Standard spark plug: NGK CR8EKB

3. 检测：

3. Test:

- 电极(1)
  Electrode (1)

损坏/弯曲/磨损=>**更换**

Damaged/bent/worn => **Replace**

- 绝缘体(2)
  Insulator (2)

异常颜色=>更换

Abnormal color => Replace

正常颜色为浅棕色。

The color shall be light brown.

Izvorna stranica (EN) · 4

2 Održavanje i popravak motora

Redoviti pregled i podešavanje

Pregled svjećice

1. Demontaža:

- Konektor svjećice.
- Svjećica.

> **PAŽNJA**
> Prije demontaže svjećice očistiti okolnu prljavštinu stlačenim zrakom kako ne bi ušla u motor.

2. Provjera:

- Model svjećice — nestandardan ⇒ zamijeniti.
- Standardna svjećica: NGK CR8EKB

3. Ispitivanje:

- Elektroda (1) — oštećena/savijena/istrošena ⇒ zamijeniti.
- Izolator (2) — neuobičajena boja ⇒ zamijeniti.

- Normalna boja je svijetlosmeđa.

4. 清洁：

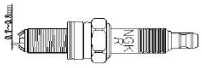
4. Clean:

- 火花塞

  Spark plug

（用火花塞清洁剂或钢丝刷清洁火花塞）

(Clean the spark plug with detergent or wire brush)



5. 测量：

5. Measure:

- 电极间隙（a）（用塞尺测量）

  Electrode clearance (a) (measure with feeler gauge)

电极之间的间隙：0.7mm-0.8mm

The electrode clearance shall be: 0.7 mm−0.8 mm

6. 安装：

6. Install:

- 火花塞

  Spark plug

火花塞：1.2-1.4Kg•m（12-14N•m）

Spark plug: 1.2 kg•m−1.4 kg•m (12 N•m−14 N•m)

N.B.:

- 火花塞安装前，应清洁塞座和垫片。

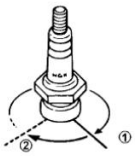
  Clean the plug seat and gasket before installing the spark plug.

- 如果没有扭力扳手，调节正确扭矩的方法是用手拧紧火花塞(1)，然后再拧紧 1/4 至 1/2 圈(2)。

  To adjust torque, if a torque wrench is not available, manually screw up the spark plug (1) tightly, and then tighten it again by 1/4 to 1/2 turn (2).

- 一定要使用新垫片。

  Use a new gasket.



调节压缩压力

Adjust the compressing pressure

N.B.：压缩压力不足会导致功率不足。

N.B.: Insufficient compressing pressure will cause insufficient power.

1. 检查：

1. Check:

- 气门间隙。

  Valve clearance.

- 超出规定值=>调节

  Greater than standard => Adjust

- 见“气门间隙调节”一节。

Izvorna stranica (EN) · 5

4. Čišćenje:

- Svjećica (očistiti sredstvom za čišćenje svjećica ili čeličnom četkom).

5. Mjerenje:

- Zazor elektroda (a) (mjeriti listom mjerača / feeler gauge).
- Zazor elektroda: 0.7 mm−0.8 mm

6. Montaža:

- Svjećica
- Svjećica: 1.2 kg•m−1.4 kg•m (12 N•m−14 N•m)

N.B.:

- Prije montaže svjećice očistiti sjedište i brtvilo.
- Ako moment-ključ nije dostupan, ručno dobro privući svjećicu (1), zatim dodatno zategnuti za 1/4 do 1/2 okreta (2).
- Uvijek koristiti novo brtvilo.

Podešavanje tlaka kompresije

N.B.: Nedovoljan tlak kompresije uzrokuje nedovoljnu snagu.

1. Provjera:

- Zazor ventila.
- Veći od standardnog ⇒ podesiti.
- Vidjeti odjeljak „Podešavanje zazora ventila“.

Refer to "Adjustment of valve clearance"

- 启动发动机，暖机数分钟。

  Start the engine and warm it up for a few minutes.
- 停机。

  Shut down the engine.

2. 拆下：

2. Remove:

- 火花塞。

  Spark plug.
- 注意：拆卸火花塞之前，要用压缩空气吹净周围污物，防止落入发动机中。

  Note: Before removing the spark plug, clean the surrounding dirt with compressed air to prevent dirt from falling into the engine.

3. 安装：

3. Install:

- 压力表(1).

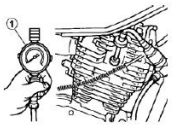
  Pressure gauge (1)

4. 测量：

4. Measure:

- 压缩压力。

  Compressing pressure



如果超过许用最大压力=>**检查气缸盖、气门表面和活塞头有无积碳。**

Higher than the maximum allowable pressure => **Check the cylinder cover, valve surface, and piston head for any carbon deposition.**

如果低于最小压力=>**向气缸内喷入数滴机油然后再测量。**

Lower than the minimum allowable pressure => **Add engine oil to the cylinder and measure the pressure again.**

按照下表：

Refer to the table below:

压缩压力（向气缸中喷入机油） Compressing pressure (adding engine oil to the cylinder)	
读数 Read the value	诊断 Diagnose
比无油时高 Higher than before	活塞磨损或损坏 The piston is damaged or worn
与无油时相同 Same as before	活塞环、气门或气缸盖或活塞的密封可能损坏=>**修理** The sealing parts of the piston ring, valve, cylinder cover, or piston may be damaged => **Repair**

压缩压力（不带减压阀）：

Compressing pressure (without pressure reducing valve):

标准值：

Standard value:

Izvorna stranica (EN) · 6

- Pokrenuti motor i zagrijati ga nekoliko minuta.
- Ugasiti motor.

2. Demontaža:

- Svjećica.

> **PAŽNJA**
> Prije demontaže svjećice očistiti okolnu prljavštinu stlačenim zrakom kako ne bi ušla u motor.

3. Montaža:

- Manometar (1).

4. Mjerenje:

- Tlak kompresije.
- Viši od najvećeg dopuštenog tlaka ⇒ provjeriti glavu cilindra, površinu ventila i glavu klipa na naslage ugljika.
- Niži od najmanjeg dopuštenog tlaka ⇒ u cilindar uliti nekoliko kapi motornog ulja i ponovno izmjeriti.

Tlak kompresije (s uljem u cilindru)

Očitana vrijednost	Dijagnoza
Viša nego bez ulja	Klip oštećen ili istrošen
Ista kao bez ulja	Moguće oštećenje brtvljenja klipnih prstenova, ventila, glave cilindra ili klipa ⇒ popraviti

Tlak kompresije (bez reducijskog ventila):

- Standardna vrijednost:

1100 kPa (11 kg/cm²)

最小：

Minimum value:

950 kPa (9.5 kg/cm²)

拆卸步骤：

Removal steps:

- 油门全开时启动发动机，直到压缩读值稳定。

  Start the engine when the throttle is fully open until the compressing pressure valve is stable.
- 安装：

  Install:
- 火花塞

  Spark plug

检查机油油位

Check the engine oil level

- 将摩托车置于平坦表面。

  Place the motorcycle on flat ground.

注意：保证摩托车与地面平行，以便正确检查油位。

Note: Make the motorcycle parallel to the ground to get the true oil level.

- 启动发动机，暖机数分钟。

  Start the engine and warm it up for a few minutes.
- 停机。

  Shut down the engine.
- 取下油尺(A)。用布拭净，然后拧入机油滤器孔中，然后立即抽出。

  Take off the dipstick (A). Wipe it with a cloth. Insert it into the oil filter hole and then pull it out immediately.



- **检查：**

  Check:
- 机油油位。

  Engine oil level.
- 机油油位应位于最高和最低刻线之间。

  The engine oil level shall be between the maximum and minimum tick marks.
- 油位低于最低刻线=>加油至正确高度。

  The oil level is lower than the minimum tick mark => Add appropriate amount of engine oil to correct height.

Izvorna stranica (EN) · 7

- 1100 kPa (11 kg/cm²)
- Najmanja vrijednost: 950 kPa (9.5 kg/cm²)

Koraci demontaže / mjerenja:

- Pokrenuti motor s potpuno otvorenom leptirastom zaklopkom (throttle) dok se očitanje tlaka kompresije ne stabilizira.
- Montirati svjećicu.

Provjera razine motornog ulja

- Postaviti motocikl na ravnu podlogu.

> **PAŽNJA**
> Motocikl mora biti paralelan s tlom radi točne provjere razine ulja.

- Pokrenuti motor i zagrijati ga nekoliko minuta.
- Ugasiti motor.
- Izvaditi šipku za mjerenje ulja (A). Obrišiti krpom, umetnuti u otvor filtra ulja i odmah izvući.
- Provjeriti razinu motornog ulja.
- Razina ulja mora biti između najviše i najniže oznake.

- Razina ispod najniže oznake ⇒ doliti odgovarajuću količinu ulja do ispravne visine.

发动机推荐用油

Recommended oil for engine

- **发动机推荐用油：**

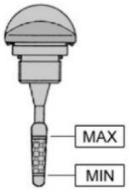
  Recommended oil for engine:
- SAE SJ 5W/40 型号等效同等油。

  SAE SJ 5W/40 or equivalent.
- 启动发动机，暖机数分钟。

  Start the engine and warm it up for a few minutes.
- 停机。

  Shut down the engine.
- 重新检查油位前应等几分钟，待油往内渗透。

  Before checking the oil level again, wait a few minutes until the oil seeps in.



更换机油

Replace the engine oil.

- 启动发动机，暖机数分钟。

  Start the engine and warm it up for a few minutes.
- 停机，在发动机下放置一个容器。

  Shut down the engine and put a container under the engine.
- **拆下：**

  Remove:
- 油尺。

  Dipstick.
- 放油塞(B)。

  Bleeder plug (B).
- 预过滤器。

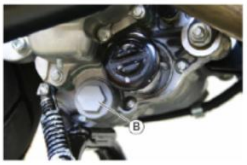
  Pre-filter.
- 放出曲轴箱中的油。

  Drain the oil from the crankcase.
- **安装：**

  Install:
- EI 预滤器。

  EI pre-filter.
- 放油塞(B)。

  Bleeder plug (B).
- 机油尺。



Izvorna stranica (EN) · 8

Preporučeno ulje za motor

- Preporučeno ulje: SAE SJ 5W/40 ili ekvivalent.
- Pokrenuti motor i zagrijati ga nekoliko minuta.
- Ugasiti motor.
- Prije ponovne provjere razine pričekati nekoliko minuta dok ulje ne prođe unutra.

Zamjena motornog ulja

- Pokrenuti motor i zagrijati ga nekoliko minuta.
- Ugasiti motor i postaviti posudu ispod motora.
- Demontirati: šipku za mjerenje ulja; čep za ispuštanje ulja (B); predfiltar.
- Ispustiti ulje iz kartera.
- Montirati: predfiltar EI; čep za ispuštanje ulja (B); šipku za mjerenje ulja.

Dipstick.

- **预滤器帽：**

  Pre-filter cap:

- 2.4 kg•m−3.0 kg•m (24 N•m−30 N•m)
- **加油：**

  Add oil:

- 向曲轴箱内加油。

  Add oil to the crankcase.

- **油量：**

  Oil volume:

- 1300 ml
- 油品：SJ 5W/40

  Oil: SJ 5W/40

- **检查：**

  Check:

- 机油油位。

  Engine oil level.

- 见“检查机油油位”一节。

  Refer to "Check engine oil level"

检查齿轮油油位

Check the gear oil level

- 将摩托车置于平坦面。

  Place the motorcycle on flat ground.

- 取下机油尺(A)，用布拭净，然后拧入机油滤器孔中，然后立即抽出。

  Take off the dipstick (A), and wipe it with a cloth. Insert it into the oil filter hole and then pull it out immediately.



- 检查：

  Check:

- 齿轮油油位应位于最高和最低刻线之间。

  The gear oil level shall be between the maximum and minimum tick marks.

- 油位低于最低刻线=>加油至正确高度。

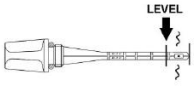
  The oil level is lower than the minimum tick mark => Add appropriate amount of engine oil to correct height.

发动机推荐用油：

Recommended oil for engine:

- SAE 80W/90 型号等效同等油。

  SAE 80W/90 or equivalent.



Izvorna stranica (EN) · 9

- Poklopac predfiltra: 2.4 kg•m−3.0 kg•m (24 N•m−30 N•m)
- Doliti ulje u karter.
- Količina ulja: 1300 ml
- Ulje: SJ 5W/40
- Provjeriti razinu motornog ulja — vidjeti odjeljak „Provjera razine motornog ulja“.

Provjera razine ulja u mjenjaču

- Postaviti motocikl na ravnu podlogu.
- Izvaditi šipku za mjerenje ulja (A), obrišiti krpom, umetnuti u otvor filtra ulja i odmah izvući.
- Provjeriti: razina ulja u mjenjaču mora biti između najviše i najniže oznake.
- Razina ispod najniže oznake ⇒ doliti do ispravne visine.

Preporučeno ulje:

- SAE 80W/90 ili ekvivalent.

更换齿轮油：

Replace gear oil:

- 取下机油尺(A)。
  Take off the dipstick (A).
- 在放油螺栓(B)下方放置一个容器，拆下放油螺栓(B)。
  Place a container under the bleeder bolt (B) and remove the bleeder bolt (B).
- 齿轮油全部放出后重新装配放油螺栓(B)。
  Reassemble the bleeder bolt (B) after fully draining the gear oil.
- 装配扭矩 15 到 17N.m。
  Keep the assembly torque between 15 N.m and 17 N.m.
- 向齿轮箱内加注齿轮油。
  Fill the gearbox with gear oil.
- 油量：250mL
  Oil volume: 250 mL
- 检查：见“检查齿轮油油位”一节。
  Check: Refer to "Check gear oil level".
- 装配机油尺(A)。
  Assemble the dipstick (A).



检查排气系统

Check the exhaust system

- 检查：
  Check:
- 螺栓（排气管）
  Bolt (exhaust tubing)
- 松动/损坏=>拧紧/更换
  Damaged/loosen => Tighten/replace
- 垫片（排气管）。
  Gasket (exhaust tubing)
- 废气泄漏=>拧紧/更换
  Leakage of exhaust gas => Tighten/replace
- 螺栓：
  Bolt:
- 1.7-1.9Kg•m (17-19N•m)

Izvorna stranica (EN) · 10

Zamjena ulja u mjenjaču

- Izvaditi šipku za mjerenje ulja (A).
- Postaviti posudu ispod vijka za ispuštanje (B) i demontirati vijak (B).
- Nakon potpunog ispuštanja ulja ponovno montirati vijak (B).
- Moment montaže: 15 do 17 N·m.
- Napunti mjenjač uljem.
- Količina ulja: 250 mL
- Provjera: vidjeti odjeljak „Provjera razine ulja u mjenjaču“.
- Montirati šipku za mjerenje ulja (A).

Provjera ispušnog sustava

- Provjeriti vijak (ispušna cijev) — oštećen/olabavljen ⇒ zategnuti/zamijeniti.
- Brtvilo (ispušna cijev) — curenje ispušnih plinova ⇒ zategnuti/zamijeniti.
- Vijak: 1.7–1.9 kg•m (17–19 N•m)

气缸头

Cylinder head

1. 清除：

1. Clean:

- 用圆刮刀清除（燃烧室中的）积碳。

  Remove the carbon deposition (in the combustion chamber) with a round scraper.

注意：

Notes:

- 在火花塞螺纹上

  On the thread of spark plug

- 气门座上

  On the valve seat

  不得使用可能损坏或擦伤零件的有锐边的工具。

  Do not use sharp-edged tools that may damage or scratch the parts.

2. 检查：

2. Check:

- 缸面

  Cylinder surface

  磨损/损坏=>更换

  Worn/damaged => Replace

- 变形测量和矫正的步骤：

  Steps for measuring and correcting deformation:

  如右图所示，在气缸头/缸体结合平面表面放置一个直尺(1)和测厚仪(2)。

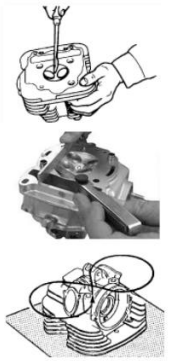
  As shown in the right figure, place a ruler (1) and gaugemeter (2) on the joint surface of the cylinder head and cylinder block.

  在平面上放置一张 400~600 砂纸，按照右图所示顺序（“8”）打磨平面。

  Place a piece of 400−600 abrasive paper on the surface and polish the surface in the order ("8") shown in the right figure.

N.B.：转动气缸盖数圈，防止一侧打磨过多的材料。

N.B.: Turn the cylinder cover several times to avoid over polishing of one side.



Izvorna stranica (EN) · 11

Glava cilindra

1. Čišćenje:

- Ukloniti naslage ugljika (u komori izgaranja) okruglim strugačem.

> **PAŽNJA**

- Na navoju svjećice
- Na sjedištu ventila
- Ne koristiti alate s oštrim rubovima koji mogu oštetiti ili ogrebati dijelove.

2. Provjera:

- Površina cilindra — istrošena/oštećena ⇒ zamijeniti.
- Koraci mjerenja i korekcije deformacije:
- Kao na desnoj slici, postaviti ravnalo (1) i mjerač debljine (2) na spojnu površinu glave cilindra i bloka cilindra.
- Postaviti brusni papir granulacije 400−600 na površinu i brusiti površinu redoslijedom („8“) prikazanim na desnoj slici.

N.B.: Nekoliko puta okrenuti glavu cilindra kako se jedna strana ne bi previsoko brusila.

调节气门

Adjust valve

- 检查气门间隙时，必须按上面说明使配气机构相位标记对准。

  When checking the valve clearance, align the phase mark of the valve distributing mechanism as described above.

- 用厚薄规检查气门和调整垫片之间的间隙是否符合规定值。 如果进、排气门间隙分别与以下规定值不同，按图拧松防松螺母，调整气门间隙。

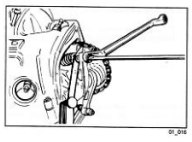
  Check whether the clearance between the valve and the adjusting gasket meets the specified value with a thickness gauge. If the clearance of the inlet and exhaust valves is different from the following specified values, loosen the locknut as shown in the figure to adjust the valve clearance.

  进气门（冷机状态下）：0.10mm

  Intake valve (cold): 0.10 mm

  排气门（冷机状态下）：0.15mm

  Exhaust valve (cold): 0.15 mm



气门座

Valve seat

1. 清除：

1. Clean:

- （气门面和气门座上的）积碳。

  Carbon deposition (on the valve surface and valve seat).

2. 检查：

2. Check:

- 气门座。

  Valve seat.

沟槽/磨损=>**研磨气门**

With groove/worn => **Polish the valve**

Izvorna stranica (EN) · 12

Podešavanje ventila

- Pri provjeri zazora ventila poravnati oznaku faze razvodnog mehanizma kako je opisano gore.
- Listom mjerača (thickness gauge) provjeriti je li zazor između ventila i podešavajuće podloške u skladu s propisanom vrijednošću. Ako se zazor usisnog i ispušnog ventila razlikuje od navedenih vrijednosti, odvrnuti kontramaticu kako je prikazano na slici i podesiti zazor.
- Usisni ventil (hladan motor): 0.10 mm
- Ispušni ventil (hladan motor): 0.15 mm

Sjedište ventila

1. Čišćenje:

- Naslage ugljika (na površini ventila i sjedištu ventila).

2. Provjera:

- Sjedište ventila — s utorom/istrošeno ⇒ brusiti ventil.

拆卸步骤：

Removal steps:

- 在气门面上涂蓝色机械涂料（Dykem）(b)。

  Apply blue mechanical paint (Dykem) on the valve surface (b).
- 将气门装入气缸盖内。

  Put the valve into the cylinder cover.
- 朝着气门导管和气门压下气门，产生可见痕迹。

  Press the valve toward the valve guide and valve to leave an indentation.
- 测量气门座宽度。

  Measure the width of the valve seat.
- 如果气门座和气门面之间有接触，涂料会被擦除。

  If the valve seat contacts with the valve surface, the paint will be peeled off.
- 如果气门座宽度过大或过小，或者未处于正中心，必须重复上述步骤。

  If the valve seat is too wide or too narrow, or is not centered, repeat the above steps.

3. 研磨：

3. Grind:

- 气门面

  Valve surface
- 气门座

  Valve seat

N.B.：修整气门座或更换了气门及导管后，必须重新研磨气门座和气门面。

N.B.: After repairing the valve seat or replacing the valve and valve guide, grind the valve seat and valve surface again.

气门落座步骤：

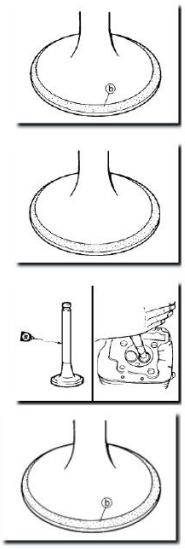
Steps for valve seating:

- 在气门面上涂粗研磨膏。

  Apply coarse grinding paste to the valve surface.
- 注意：

  Notes:
- 研磨膏不得流入气门杆和导管之间的空隙中。

  The grinding paste shall not flow into the gap between the valve rod and valve guide.
- 在气门杆上涂二硫化钼润滑剂。



Izvorna stranica (EN) · 13

Koraci demontaže / provjere:

- Na površinu ventila (b) nanijeti plavu mehaničku boju (Dykem).
- Umetnuti ventil u glavu cilindra.
- Pritisnuti ventil prema vodilici ventila kako bi ostao vidljiv otisak.
- Izmjeriti širinu sjedišta ventila.
- Ako sjedište ventila dodiruje površinu ventila, boja će se skinuti.
- Ako je sjedište ventila preširoko ili suviše usko, ili nije centrirano, ponoviti gornje korake.

3. Brušenje:

- Površina ventila
- Sjedište ventila

N.B.: Nakon popravka sjedišta ventila ili zamjene ventila i vodilice, ponovno brusiti sjedište i površinu ventila.

Koraci za sjedenje ventila:

- Na površinu ventila nanijeti grubu pastu za brušenje.

PAŽNJA

- Pasta za brušenje ne smije ući u zazor između vretena ventila i vodilice.
- Na vreteno ventila nanijeti mazivo s molibdenovim disulfidom.

Apply molybdenum disulfide lubricant to the valve rod.

- 将气门装入气缸盖中。

  Put the valve into the cylinder cover.

- 转动气门，直至气门面及气门座能均匀研磨，然后立即去除研磨膏。

  Turn the valve until the valve surface and valve seat can be evenly ground. Then remove the grinding paste immediately.

- N.B.：为了使气门落座效果最佳，应轻轻摇动气门座，同时用手前后拧动气门座。

  N.B.: To achieve the best valve seating effect, gently shake the valve seat and screw it back and forth at the same time.

- 在气门面上涂粗研磨膏，重复上述步骤。

  Apply coarse grinding paste to the valve surface and repeat the above steps.

N.B.：每次气门落座操作后，一定要保证完全去除气门座表面的研磨膏。

N.B.: Every time the valve is seated, be sure to remove all grinding paste on the surface of the valve seat.

- 在气门面(b)上涂蓝色的机械涂料（Dykem）。

  Apply blue mechanical paint (Dykem) on the valve surface (b).

- 将气门装入气缸盖中。

  Put the valve into the cylinder cover.

- 下压气门，穿过气门导管压在气门座上，形成良好接触。

  Press down the value through the valve guide to make it well seated on the valve seat.

气门及气门弹簧

Valve and valve spring

1. 测量：

1. Measure:

- 弹簧自由长度(a)。

  Free length of the valve spring (a).

超出规定值=>**更换**

Longer than standard => **Replace**

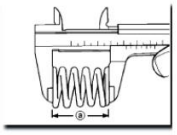
气门弹簧自由长度：

Free length of the valve spring:

39

2. 测量：

2. Check:





Izvorna stranica (EN) · 14

- Umetnuti ventil u glavu cilindra.
- Okretati ventil dok se površina ventila i sjedište ne izbruse ravnomjerno, zatim odmah ukloniti pastu za brušenje.
- **N.B.:** Za najbolji učinak sjedenja, blago pomicati sjedište ventila i istodobno ga ručno okretati naprijed-natrag.
- Nanijeti grubu pastu za brušenje na površinu ventila i ponoviti gornje korake.

N.B.: Nakon svakog sjedenja ventila u potpunosti ukloniti pastu za brušenje s površine sjedišta.

- Na površinu ventila (b) nanijeti plavu mehaničku boju (Dykem).
- Umetnuti ventil u glavu cilindra.
- Pritisnuti ventil kroz vodilicu na sjedište radi dobrog kontakta.

Ventil i opruga ventila

1. Mjerenje:

- Slobodna duljina opruge (a).
- Veća od standardne ⇒ zamijeniti.
- Slobodna duljina opruge ventila: 39

2. Provjera:

- 弹簧接触表面。
  Contact surface of the valve spring.

磨损/损坏/擦伤=>**更换**。

Worn/damaged/scratched => **Replace**.

检查凸轮轴

Check camshaft

1. 检查：

1. Check:

- 凸轮凸角。
  Cam lobe.

沟槽/擦伤/变蓝=>**更换**。

With groove/scratched/turning blue => **Replace**.

2. 检查：

2. Check:

- 凸轮轴中的油道。
  Oil duct in the camshaft.

堵塞=>**用压缩空气吹除。**

Blocked => **Blow with compressed air.**



正时链、链轮和导链板

Timing chain, chain wheel, and chain guide

1. 检查：

1. Check:

- 正时链。
  Timing chain

僵硬/损坏=>**更换链条和链轮。**

Rigid/damaged => **Replace the chain and chain wheel.**



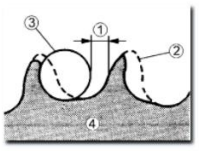
2. 检查：

2. Check:

- 主动链轮
  Driving chain wheel

损坏/磨损=>**更换链轮和正时链**。

Damaged/worn => **Replace the chain wheel and timing chain**.



（1）1/4 齿

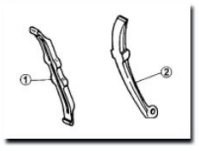
(1) 1/4 tooth

（2）正确

(2) Correct

（3）滚子

(3) Roller



Izvorna stranica (EN) · 15

- Kontaktna površina opruge ventila — istrošena/oštećena/ogrebana ⇒ zamijeniti.

Provjera bregaste osovine

1. Provjera:

- Breg (cam lobe) — s utorom/ogreban/pomodrio ⇒ zamijeniti.

2. Provjera:

- Uljni kanal u bregastoj osovini — začepljen ⇒ ispuhati stlačenim zrakom.

Razvodni lanac, lančanik i vodilica lanca

1. Provjera:

- Razvodni lanac — krut/oštećen ⇒ zamijeniti lanac i lančanik.

2. Provjera:

- Pogonski lančanik — oštećen/istrošen ⇒ zamijeniti lančanik i razvodni lanac.
- (1) 1/4 zuba
- (2) Ispravno
- (3) Valjak

（4）链轮

(4) Chain wheel

3. 检查：

3. Check:

- 正时导链板（排气）(1)

  Timing chain guide (exhaust) (1)

- 正时导链板（进气）(2)

  Timing chain guide (inlet) (2)

损坏/磨损=>**更换**。

Damaged/worn => **Replace**.

气缸和活塞

Cylinder and piston

1. 检查：

1. Check:

- 气缸壁和活塞壁

  Wall of cylinder and piston

竖向擦痕=>**修理或更换气缸和活塞。**

With vertical scratches => **Repair or replace the cylinder and piston.**

2. 测量：

2. Check:

- 气缸-活塞间隙

  Clearance between the cylinder and piston

拆卸步骤：

Removal steps:

- 用内径规测量气缸直径 C。

  Measure the cylinder diameter C with an internal gauge.

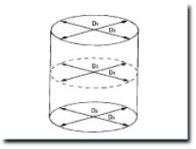
N.B.：横向且垂直于曲轴测量气缸直径 C。然后计算平均测量值。

N.B.: Put the internal gauge widthwise and perpendicular to the crankshaft to measure the cylinder diameter C. Then calculate the average measured value.

气缸和活塞间隙：

Clearance between the cylinder and piston:

0.050-0.064mm



Izvorna stranica (EN) · 16

- (4) Lančanik

3. Provjera:

- Vodilica razvodnog lanca (ispuh) (1)
- Vodilica razvodnog lanca (usis) (2)
- Oštećena/istrošena ⇒ zamijeniti.

Cilindar i klip

1. Provjera:

- Stijenka cilindra i klipa — s okomitim ogrebotinama ⇒ popraviti ili zamijeniti cilindar i klip.

2. Provjera / mjerenje:

- Zazor između cilindra i klipa

Koraci:

- Unutarnjim mjeračem izmjeriti promjer cilindra C.

N.B.: Mjerač postaviti poprečno i okomito na radilicu za mjerenje promjera C. Zatim izračunati prosječnu izmjerenu vrijednost.

- Zazor između cilindra i klipa: 0.050–0.064 mm

曲轴连杆活塞组件的检查

Check of crankshaft connecting rod piston assembly

曲轴检查

Check of crankshaft

- 检查连杆轴向间隙。

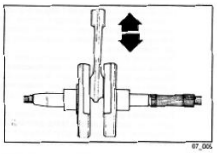
  Check the axial clearance of the connecting rod

  标准间隙：0.20~0.50mm

  Standard clearance: 0.20 mm−0.50 mm

  最大间隙：0.50mm

  Maximum clearance: 0.50 mm



- 检查连杆径向间隙，手工锁止曲轴，按图在垂直方向上移动连杆，用安装在连杆小头端面上的百分表测量间隙。

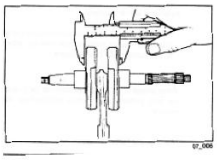
  Check the radial clearance of the connecting rod: Manually lock the crankshaft and vertically move the connecting rod as shown in the figure. Then measure the clearance with the dial gage installed on the end face of the connecting rod head.

  标准间隙：0.028~0.046 mm

  Standard clearance: 0.028 mm−0.046 mm

  最大间隙：0.046mm

  Maximum clearance: 0.046 mm



- 检查曲轴表面有无划痕现象，按图用卡尺检查曲轴宽度。

  Check the crankshaft surface for any scratch, and check the crankshaft width with the caliper as shown in the figure.

  标准尺寸：55.67~55.85mm

  Standard size: 55.67 mm−55.85 mm

- 曲轴直线度的检查

  Check of crankshaft straightness

将曲轴装到支承上，在图中指示的 4 个位置检查直线度。

Install the crankshaft onto the support and check the straightness at the 4 positions indicated in the figure.

直线度最大允许偏差：

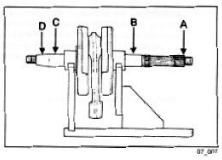
Maximum allowable deviation of straightness:

A=0.15 mm

B=0.01 mm

C=0.01 mm

D=0.10 mm



注释：如果测量值超过允许值不多，尝试用木榔头校

Izvorna stranica (EN) · 17

Provjera sklopa radilica–ojnica–klip

Provjera radilice

- Provjeriti aksijalni zazor ojnice.
- Standardni zazor: 0.20 mm−0.50 mm
- Najveći zazor: 0.50 mm
- Provjeriti radijalni zazor ojnice: ručno blokirati radilicu i okomito pomicati ojnicu kako je prikazano. Zatim izmjeriti zazor satnim mjeračem postavljenim na čelo glave ojnice.
- Standardni zazor: 0.028 mm−0.046 mm
- Najveći zazor: 0.046 mm
- Provjeriti površinu radilice na ogrebotine i klještima (kaliper) izmjeriti širinu radilice kako je prikazano.
- Standardna dimenzija: 55.67 mm−55.85 mm

Provjera pravosti radilice

Postaviti radilicu na nosače i provjeriti pravost na 4 položaja označena na slici.

Najveće dopušteno odstupanje pravosti:

- A = 0.15 mm
- B = 0.01 mm

- C = 0.01 mm
- D = 0.10 mm

> **PAŽNJA**
> Ako izmjerena vrijednost nije znatno veća od dopuštene, pokušati ispraviti radilicu drvenim čekićem.

直曲轴，必要时，用虎钳夹紧曲轴。

Note: If the measured value is slightly greater than the allowable value, try to straighten the crankshaft with a wooden hammer. If necessary, clamp the crankshaft with a vice.

在这种情况下，如果测量值与允许值差异很大，就要更换曲轴。

If the measured value is much greater than the allowable value, replace the crankshaft.

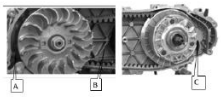
从动皮带轮的检查

Check of driven belt pulley

- 用专用工具锁止离合器罩。

  Lock the clutch housing with the special tool.
- 拆下螺母、离合器罩和从动皮带轮总成。

  Remove the nut, clutch housing, and driven belt pulley assembly.



检查：

Check:

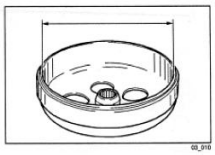
- 皮带型腔清洁度

  Cleanness of the belt mold cavity
- 粉尘=>气枪吹净型腔各处粉尘(A&B&C)。

  Dusted => Blow off the dusts in the mold cavity with an air gun (A&B&C)

从动皮带轮

Driven belt pulley



- 检查离合器罩有无磨损或损坏现象。

  Check the clutch housing for any wear or damage.
- 测量离合器罩内径。

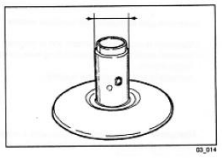
  Measure the inner diameter of the clutch housing.

  标准值：∅134+0.2 /0mm

  Standard value: ∅134+0.2/0 mm

  最大值：∅134.5mm

  Maximum value: φ 134.5 mm



- 注释：检查偏心度：最大 0.20mm。

  Note: check the eccentricity: maximum: 0.20 mm.

离合器的拆卸

Removal of clutch

Izvorna stranica (EN) · 18

PAŽNJA

Po potrebi stegnuti radilicu u škripac. Ako je izmjerena vrijednost znatno veća od dopuštene, zamijeniti radilicu.

Provjera gonjene remenice

- Blokirati kućište spojke specijalnim alatom.
- Demontirati maticu, kućište spojke i sklop gonjene remenice.

Provjera:

- Čistoća šupljine remena
- Prašina ⇒ ispuhati prašinu iz šupljine zračnim pištoljem (A&B&C).

Gonjena remenica

- Provjeriti kućište spojke na istrošenost ili oštećenje.
- Izmjeriti unutarnji promjer kućišta spojke.
- Standardna vrijednost: ⌀134+0.2/0 mm
- Najveća vrijednost: ⌀134.5 mm
- **Napomena:** provjeriti ekscentričnost: najviše 0.20 mm.

Demontaža spojke

固定从动盘

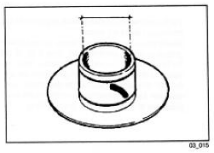
Fixed driven plate

- 测量皮带轮滑套外径。

  Measure the outer diameter of the belt pulley sleeve.
- 最小允许直径：∅40.950mm

  Minimum allowable diameter: φ 40.950 mm
- 标准直径：∅41（-0.015/-0.035）mm

  Standard diameter: ∅41 (-0.015/ -0.035) mm



移动从动盘

Movable driven plate

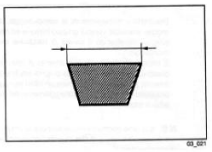
- 拆下 2 个皮碗和 2 个密封圈。

  Remove 2 cups and 2 sealing rings.
- 测量移动从动盘滑套内径。

  Measure the inner diameter of the sliding sleeve of the movable driven plate.
- 最大允许直径：∅41.08mm

  Maximum allowable diameter: ∅41.08 mm
- 标准直径：∅41（+0.035/0）mm

  Standard diameter: ∅41 (+0.035/0) mm



传动皮带

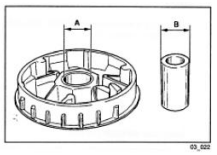
Drive belt

- 检查传动皮带有无损坏现象。

  Check the drive belt for any damage.
- 检查皮带宽度: 最小宽度：19.5mm

  Check the belt width: minimum width: 19.5 mm
- 标准值：21.3±0.2mm

  Standard value: 21.3 ± 0.2 mm



主动轮

Driving wheel

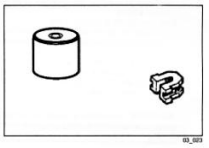
- 检查图中指示的衬套有无异常磨损现象，测量内径 A。

  Check the bushing shown in the figure for any wear, and measure the inner diameter A.
- 最大允许直径：φ25.12mm

  Maximum allowable diameter: φ 25.12 mm
- 标准直径：φ25(+0.021/0) mm

  Standard diameter: φ25 (+0.021/0) mm

注意：切勿对衬套进行润滑或清洗。



Izvorna stranica (EN) · 19

Fiksni gonjeni disk

- Izmjeriti vanjski promjer kliznog tuljka remenice.
- Najmanji dopušteni promjer: ⌀40.950 mm
- Standardni promjer: ⌀41 (−0.015/−0.035) mm

Pokretni gonjeni disk

- Demontirati 2 čašice i 2 brtvena prstena.
- Izmjeriti unutarnji promjer kliznog tuljka pokretnog gonjenog diska.
- Najveći dopušteni promjer: ⌀41.08 mm
- Standardni promjer: ⌀41 (+0.035/0) mm

Pogonski remen

- Provjeriti pogonski remen na oštećenja.
- Provjeriti širinu remena: najmanja širina: 19.5 mm
- Standardna vrijednost: 21.3 ± 0.2 mm

Pogonski kotač

- Provjeriti čahuru prikazanu na slici na neuobičajenu istrošenost i izmjeriti unutarnji promjer A.
- Najveći dopušteni promjer: ⌀25.12 mm

- Standardni promjer: ⌀25 (+0.021/0) mm

> **PAŽNJA**
> Ne podmazivati niti prati čahuru.

Note: Do not lubricate or clean the bushing.

- 测量图中指示的主动轮滑套外径 B。

  Measure the outer diameter B of the driving wheel sliding sleeve shown in the figure.
- 最小允许直径：∅24.95mm

  Minimum allowable diameter: ∅24.95 mm
- 标准直径：∅25(-0.02/ -0.041)mm
- Standard diameter: ∅25 (-0.02/ -0.041) mm

  检查滚轮有无损坏或磨损现象。
- Check the roller for any damage or wear.
- 最小允许直径：∅20mm

  Minimum allowable diameter: ∅20 mm
- 标准直径：∅21±0.1mm

  Standard diameter: ∅21±0.1 mm
- 检查滚轮压板有无磨损现象。

  Check the roller pressing plate for any wear.
- 检查移动盘和固定盘上滚轮槽和皮带接触表面磨损状况。

  Check the roller groove and belt contact surface on the movable disc and fixed disc for any wear.

蹄片的检查安装

Check and installation of brake shoe

- 检查蹄片摩擦材料最小厚度。

  Check the minimum thickness of brake shoe friction material.
- 最小厚度：1mm

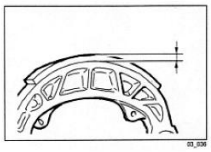
  Minimum thickness: 1 mm
- 检查凸轮和轴座有无磨损现象。

  Check the cam and shaft seat for any wear.
- 检查弹簧有无磨损或损坏现象。

  Check the spring for any wear or damage.
- 如果发现异常现象，就要更换蹄片。

  In case of any abnormality, replace the brake shoe.
- 蹄片带弹簧总成的安装按与拆卸相反的程序进行。

  Install the brake shoe with spring assembly in the order reverse to disassembly.



Izvorna stranica (EN) · 20

- Izmjeriti vanjski promjer B kliznog tuljka pogonskog kotača prikazan na slici.
- Najmanji dopušteni promjer: ⌀24.95 mm
- Standardni promjer: ⌀25 (−0.02/−0.041) mm
- Provjeriti valjak na oštećenje ili istrošenost.
- Najmanji dopušteni promjer: ⌀20 mm
- Standardni promjer: ⌀21±0.1 mm
- Provjeriti pritisnu ploču valjaka na istrošenost.
- Provjeriti utor valjka i kontaktnu površinu remena na pokretnom i fiksnom disku na istrošenost.

Provjera i montaža čeljusti (brake shoe)

- Provjeriti najmanju debljinu frikcijskog materijala čeljusti.
- Najmanja debljina: 1 mm
- Provjeriti breg i sjedište osovine na istrošenost.
- Provjeriti opruge na istrošenost ili oštećenje.
- U slučaju nepravilnosti zamijeniti čeljust.
- Montirati sklop čeljusti s oprugom obrnutim redoslijedom od demontaže.

固定盘的安装

Installation of fixed disc

- 重新安装固定盘总成（滚轮架带滑套总成、限位垫圈、皮带传动装置、垫圈和螺母）。

  Reinstall the fixed disc assembly (roller carrier with sliding sleeve assembly, stop washer, belt drive unit, washer, and nut).

- 按 75～83N·m 拧紧，用专用工具防止主动轮转动。

  Tighten them at 75 N•m−83 N•m, and prevent the driving wheel from rotating with the special tools.

- 注释：每次重新安装时使用新的螺母。

  Note: Use new nuts for each reinstallation.

- 拧紧力矩+转角：75～83N·m。

  Tightening torque + rotating angle: 75 N•m−83 N•m



离合器罩的安装

Installation of the clutch housing

- 使用专用工具重新安装从动皮带轮总成、离合器罩和螺母。

  Reinstall the driven belt pulley assembly, clutch housing, and nuts with the special tools.

- 拧紧力矩：55～65N.m

  Tightening torque: 55 N•m−65 N•m



Izvorna stranica (EN) · 21

Montaža fiksnog diska

- Ponovno montirati sklop fiksnog diska (nosač valjaka s kliznim tuljkom, granična podloška, pogonski sklop remena, podloška i matica).
- Zategnuti na 75 N•m−83 N•m i specijalnim alatom spriječiti okretanje pogonskog kotača.
- **Napomena:** Pri svakoj ponovnoj montaži koristiti nove matice.
- Moment zatezanja + kut okretanja: 75 N•m−83 N•m

Montaža kućišta spojke

- Specijalnim alatom ponovno montirati sklop gonjene remenice, kućište spojke i matice.
- Moment zatezanja: 55 N•m−65 N•m

机油泵的检查

Check of the oil pump

- 拧下 2 个固定螺钉，拆下机油泵盖。

  Screw off 2 fixing screws and remove the oil pump cover.
- 拆下内部转子锁环。

  Remove the internal rotor lock ring.
- 拆下转子，用除油溶剂和压缩空气仔细清洗。

  Remove the rotor and carefully clean it with degreasing agent and compressed air.
- 重新安装转子和泵体，使 2 个标记从外面可以看见。安装锁环。

  Reinstall the rotor and pump body to enable two marks to be visible from the outside. Install the lock ring.
- 用厚薄规检查图中指示的位置上转子（内转子和外转子）之间的间隙。

  Check the gap between the rotor (inner rotor and outer rotor) at the position indicated in the figure with a thickness gauge.
- 允许限值间隙：0.12mm

  Allowable limit clearance: 0.12 mm
- 按图检查外转子和内转子之间的间隙。

  Check the gap between the outer rotor and the inner rotor according to the figure.
- 允许限值间隙：0.20mm

  Allowable limit clearance: 0.20 mm
- 按图将磨削后的长钢条作为基准面，测量转子的轴向间隙。

  Measure the axial clearance of the rotor with the ground long steel bar as the reference plane according to the figure.
- 允许限值间隙：0.09mm

  Allowable limit clearance: 0.09 mm

  注释：检查磨削后的长钢条是否正确放在机油泵体平面两个点上。

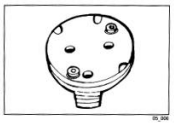
  Note: Check whether the ground long steel bar is properly placed at two points on the plane of the oil pump body.

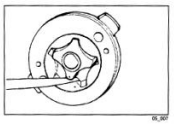
机油泵的安装

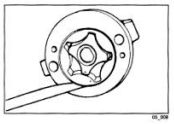
Installation of oil pump

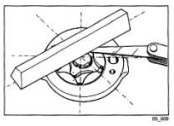
- 检查机油泵轴和泵体有无磨损现象。

  Check the oil pump shaft and pump body for wear.
- 检查泵盖有无磨损或划痕现象。









Izvorna stranica (EN) · 22

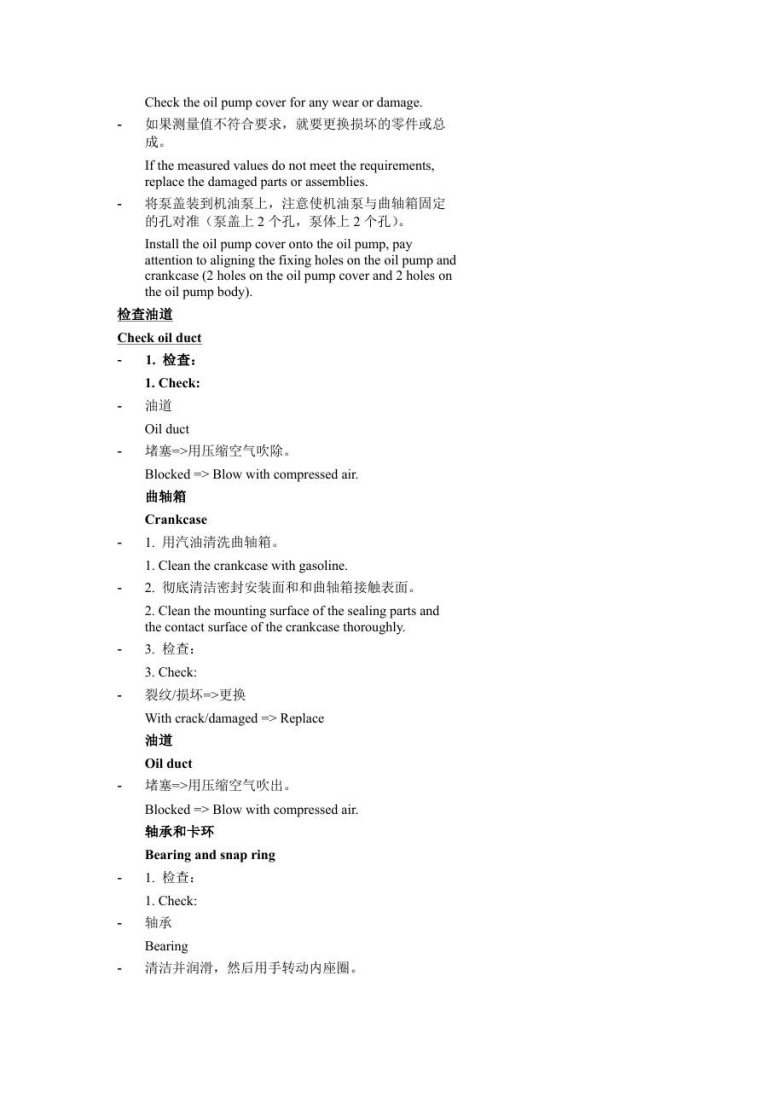
Provjera uljne pumpe

- Odvrnuti 2 pričvrsna vijka i demontirati poklopac uljne pumpe.
- Demontirati osiguravajući prsten unutarnjeg rotora.
- Demontirati rotor i pažljivo očistiti odmašćivačem i stlačenim zrakom.
- Ponovno montirati rotor i tijelo pumpe tako da su 2 oznake vidljive s vanjske strane. Montirati osiguravajući prsten.
- Listom mjerača provjeriti zazor između rotora (unutarnji i vanjski) na mjestu označenom na slici.
- Dopušteni granični zazor: 0.12 mm
- Prema slici provjeriti zazor između vanjskog i unutarnjeg rotora.
- Dopušteni granični zazor: 0.20 mm
- Izmjeriti aksijalni zazor rotora koristeći brušenom dugom čeličnom šipkom kao referentnom ravninom, kako je prikazano.
- Dopušteni granični zazor: 0.09 mm
- **Napomena:** Provjeriti je li brušena čelična šipka ispravno položena na dvije točke ravnine tijela uljne pumpe.

Montaža uljne pumpe

- Provjeriti osovinu uljne pumpe i tijelo pumpe na istrošenost.

• Provjeriti poklopac pumpe na istrošenost ili ogrebotine.



Check the oil pump cover for any wear or damage.

- 如果测量值不符合要求，就要更换损坏的零件或总成。

If the measured values do not meet the requirements, replace the damaged parts or assemblies.

- 将泵盖装到机油泵上，注意使机油泵与曲轴箱固定的孔对准（泵盖上 2 个孔，泵体上 2 个孔）。

Install the oil pump cover onto the oil pump, pay attention to aligning the fixing holes on the oil pump and crankcase (2 holes on the oil pump cover and 2 holes on the oil pump body).

检查油道

Check oil duct

- **1. 检查：**

1. Check:

- 油道

Oil duct

- 堵塞=>用压缩空气吹除。

Blocked => Blow with compressed air.

曲轴箱

Crankcase

- 1. 用汽油清洗曲轴箱。

1. Clean the crankcase with gasoline.

- 2. 彻底清洁密封安装面和和曲轴箱接触表面。

2. Clean the mounting surface of the sealing parts and the contact surface of the crankcase thoroughly.

- 3. 检查：

3. Check:

- 裂纹/损坏=>更换

With crack/damaged => Replace

油道

Oil duct

- 堵塞=>用压缩空气吹出。

Blocked => Blow with compressed air.

轴承和卡环

Bearing and snap ring

- 1. 检查：

1. Check:

- 轴承

Bearing

- 清洁并润滑，然后用手转动内座圈。

Izvorna stranica (EN) · 23

- Ako izmjerene vrijednosti ne zadovoljavaju zahtjeve, zamijeniti oštećene dijelove ili sklopove.
- Montirati poklopac na uljnu pumpu, pazeći da se poravnaju otvori za pričvršćivanje pumpe i kartera (2 otvora na poklopcu, 2 otvora na tijelu pumpe).

Provjera uljnog kanala

1. Provjera:

- Uljni kanal — začepljen ⇒ ispuhati stlačenim zrakom.

Karter

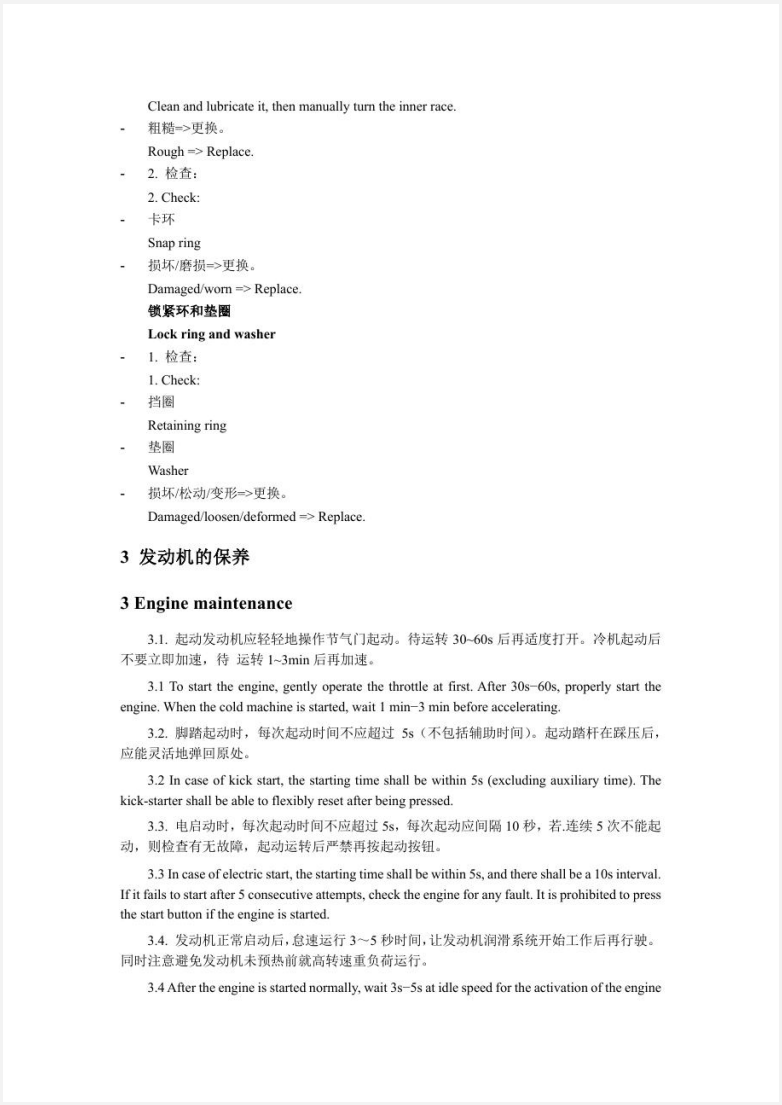
- 1. Očistiti karter benzinom.
- 2. Temeljito očistiti montažnu površinu brtvila i kontaktnu površinu kartera.
- 3. Provjera: pukotine/oštećenje ⇒ zamijeniti.

Uljni kanal

- Začepljen ⇒ ispuhati stlačenim zrakom.

Ležaj i osiguravajući prsten (snap ring)

- 1. Provjera: ležaj — očistiti i podmazati, zatim ručno okretati unutarnji prsten.



Clean and lubricate it, then manually turn the inner race.

- 粗糙=>更换。

Rough => Replace.

- 2. 检查：

2. Check:

- 卡环

Snap ring

- 损坏/磨损=>更换。

Damaged/worn => Replace.

锁紧环和垫圈

Lock ring and washer

- 1. 检查：

1. Check:

- 挡圈

Retaining ring

- 垫圈

Washer

- 损坏/松动/变形=>更换。

Damaged/loosen/deformed => Replace.

3 发动机的保养

3 Engine maintenance

3.1. 起动发动机应轻轻地操作节气门起动。待运转 30~60s 后再适度打开。冷机起动后不要立即加速，待 运转 1~3min 后再加速。

3.1 To start the engine, gently operate the throttle at first. After 30s−60s, properly start the engine. When the cold machine is started, wait 1 min−3 min before accelerating.

3.2. 脚踏起动时，每次起动时间不应超过 5s（不包括辅助时间）。起动踏杆在踩压后，应能灵活地弹回原处。

3.2 In case of kick start, the starting time shall be within 5s (excluding auxiliary time). The kick-starter shall be able to flexibly reset after being pressed.

3.3. 电启动时，每次起动时间不应超过 5s，每次起动应间隔 10 秒，若.连续 5 次不能起动，则检查有无故障，起动运转后严禁再按起动按钮。

3.3 In case of electric start, the starting time shall be within 5s, and there shall be a 10s interval. If it fails to start after 5 consecutive attempts, check the engine for any fault. It is prohibited to press the start button if the engine is started.

3.4. 发动机正常启动后，怠速运行 3～5 秒时间，让发动机润滑系统开始工作后再行驶。同时注意避免发动机未预热前就高转速重负荷运行。

3.4 After the engine is started normally, wait 3s−5s at idle speed for the activation of the engine

Izvorna stranica (EN) · 24

- Hrapav ⇒ zamijeniti.
- 2. Provjera: osiguravajući prsten (snap ring) — oštećen/istrošen ⇒ zamijeniti.

Osiguravajući prsten i podloška

- 1. Provjera: potisni prsten (retaining ring); podloška — oštećeni/olabavljeni/deformirani ⇒ zamijeniti.

3 Održavanje motora

3.1 Pri pokretanju motora najprije blago upravljati leptirastom zaklopkom (throttle). Nakon 30 s−60 s pravilno pokrenuti motor. Kod hladnog pokretanja pričekati 1 min−3 min prije ubrzavanja.

3.2 Kod nožnog pokretanja (kick start) vrijeme pokretanja ne smije prelaziti 5 s (bez pomoćnog vremena). Poluga startera mora se nakon pritiska fleksibilno vratiti u početni položaj.

3.3 Kod električnog pokretanja vrijeme pokretanja ne smije prelaziti 5 s, s razmakom od 10 s između pokušaja. Ako se nakon 5 uzastopnih pokušaja motor ne pokrene, provjeriti kvar. Zabranjeno je pritiskati tipku startera nakon što je motor pokrenut.

3.4 Nakon normalnog pokretanja držati motor 3 s−5 s u praznom hodu kako bi se aktivirao sustav podmazivanja, zatim voziti.

lubrication system before driving. And avoid high speed and heavy load operation before the engine is preheated.

3.5. 新机装在摩托车上后，在头 1000 公里的驾驶期间，不能在高速长时间操作，也不能使其转速超过其最大转速的 80%。不要使节气门在全开的条件下操作。行驶 500 公里后，应进行一次维修，补偿磨合期的轻微磨损，才能确保发动机的良好性能。

3.5 During the first 1000 km driving range after the engine is installed on the motorcycle, the engine cannot work at high speed for a long time, nor can its speed exceed 80% of the maximum speed. Do not leave the throttle working at full-open. After driving for 500 km, repair and eliminate the slight wear caused during the running-in to ensure the good performance of the engine.

3.6. 每 2000 公里检查清洗一次空滤器，主要为检查空滤器各结合面密封情况，清除空滤器内腔和滤芯上的沙尘。装配时注意各结合面的密封，对失去密封作用的零部件做更换或修补处理，确保空气滤清效果，延长发动机活塞、缸体的使用寿命，有效避免烧机油或动力不足等情况发生。

3.6 Check and clean the air filter every 2000 km: mainly to check the sealing of each joint surface of the air filter and remove the sand and dust on the inner cavity of the air filter and filter element. During assembly, pay attention to the sealing of each joint surface. Replace or repair the parts without sealing function to ensure the air filtering effect, prolong the service life of engine piston and cylinder block, and effectively avoid oil burning or insufficient power.

Izvorna stranica (EN) · 25

Izbjegavati rad pri velikom broju okretaja i velikom opterećenju prije zagrijavanja motora.

3.5 Tijekom prvih 1000 km nakon ugradnje motora u motocikl ne raditi dugotrajno pri velikoj brzini niti prelaziti 80 % maksimalnog broja okretaja. Ne držati leptirastu zaklopku potpuno otvorenom. Nakon 500 km obaviti servis i ukloniti blago trošenje nastalo tijekom uhodavanja radi dobre performanse motora.

3.6 Svakih 2000 km pregledati i očistiti filter zraka: uglavnom provjeriti brtvljenje spojeva filtera i ukloniti pijesak i prašinu iz unutrašnjosti i s filter-elementa. Pri montaži paziti na brtvljenje spojeva. Zamijeniti ili popraviti dijelove bez brtvene funkcije kako bi se osiguralo filtriranje zraka, produžio vijek klipa i cilindra te učinkovito izbjeglo sagorijevanje ulja ili nedovoljna snaga.