



Tel. +81- 544- 54-1781 Fax. +81- 544- 54-1410

E-mail : [hks\\_aviation@hks-power.co.jp](mailto:hks_aviation@hks-power.co.jp) [http://www.hks-power.co.jp/hks\\_aviation/](http://www.hks-power.co.jp/hks_aviation/)

HKS AVIATION CO., LTD.

2266 kamiide, Fujinomiya-shi,

Shizuoka-ken 418-0103

JAPAN

## HKS700E SERVICE BULLETIN

**MANDATORY**

**SB-0801**

### **Subject:**

Low compression caused by excessive wear of exhaust valve guide.

### **Engine affected:**

HKS700E from S/N 100440

### **Reason:**

One or more of the following could result in increased heat stress and excessive wear of exhaust valve guide:

- Higher exhaust gas temperatures (EGTs)
  - Unsuitable fuel, not specified in the Operation Manual or with Alcohol added
  - Unapproved and untested changes of settings of the carburetor
  - Propeller setting
- Exhaust valve guide (from S/N 101032 to S/N 101319) might be outside of specified tolerance.
- Use of motorcycle oil

### **Compliance:**

- STEP1 & 2            Before the next flight
- STEP3                At each 100hrs check until 800hrs of operation



### **WARNING!**

Non-compliance with these instructions could result in engine damage, personal injury or death!

The inspection must be done by a competent person.

**Instructions:**

- STEP1

- Perform the compression check according to the Operation Manual.  
If the compression is below 116 psi (8 bar), send the engine via the responsible HKS distributor to HKS or authorized overhaul facility for repair.  
If the compression is normal, STEP2 & 3 becomes effective.

- STEP2

- Change the clip position of JN from 3<sup>rd</sup> to 4<sup>th</sup> (From S/N 100440 to S/N 101319)
- Verify the carburetor setting according to TABLE 1

	Upper manifold	Horizontal manifold
MAIN JET (MJ)	125 (130* <sup>1</sup> )	135(140* <sup>1</sup> )
NEEDLE JET (NJ)	2.7	
DIFFUSER (CK)	10	
IDLE JET (PK)	45	
IDLE MIXTURE SCREW	1-1/2 turn	
JET NEEDLE (JN)	251/ 4 <sup>th</sup> groove from top.	
STARTING JET	75	
PISTON (SB)	6	

TABLE 1

(\*1) Change the MAIN JET when using the fuel with alcohol (From S/N 100440).  
Fuel with more than **5%** alcohol added must not be used.

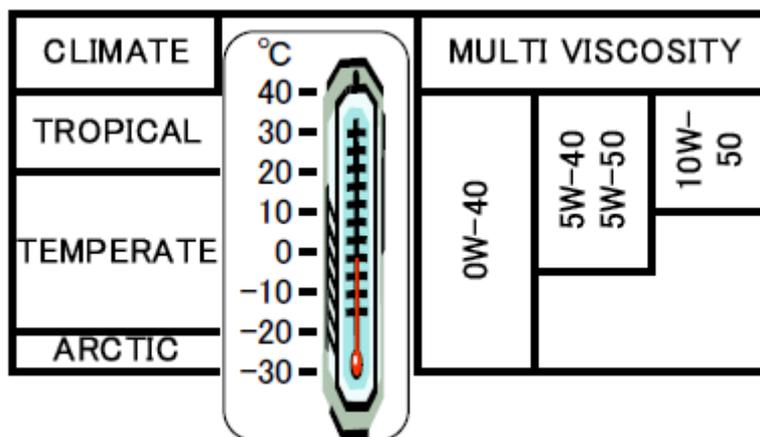
 **ATTENTION!**

This new clip position is already in use on the following engines and must be used on the next engine repair or overhaul.

- Commencing with engine S/N 101320

- Verify the oil type

Only multi-grade brand-name 100% synthetic oils for **AUTOMOBILE** engines, according to API-classification (API min. SJ). Take the viscosity of the oil as below.



- Equip the correct senders for CHT and EGT in order to monitor the accurate operating condition. Please see Sec 8 of Installation Manual
  - Install the bayonet style CHT probe units (senders) in the threaded bosses that are prepared on cylinder heads.
  - Install the exhaust gas temperature sending units (senders) at 20mm -50mm apart from the exhaust port flange.
  
- STEP3
  - Perform the compression check in STEP1 at each 100hrs check and proceed accordingly. Within 8 years after shipping or after 800 hrs of operation send the engine via the responsible HKS distributor to HKS or authorized overhaul facility for overhaul.

February 06, 2008

HKS AVIATION CO., LTD