the construction and specifications of domestic engine, see their respective operation instruction.

## 1.2 Precautions on the Installment and Use of Nissan Gasoline Engines

(Suitable for Nissan H15KA4GR00, H20KA4GR00, and H25KA4GR00 gasoline engines)

(1)Precaution on the Installment of Nissan Gasoline Engines

| Precautions | | Requirement | Remarks |
|---|---|---|---|
| Cooling System | Permissible temp. of cooling water(outlet) | Normal:80℃ Max:110℃ | Prevent overheat |
| | Pressure on radiator cap | Normal:88.3kPa (0.9kg/cm²) | Standard value |
| | Air exhaustion | Opening little cock For exhaust when adding water | |
| Lub System | Permissible temp. | Max:120℃ at oil pool | |

(2)Precautions on the Use of Nissan Gasoline Engines

| Precautions | | Requirement | Remarks |
|---|---|---|---|
| Cooling System | Negative pressure At air inlet | Normal:<0.98kpa Max 6.18Mpa | Require the usr of net element in air filter, the replacement of the element once per 6 months or 1200 working hours or erlier if used in three-shifts system or wourking under severe condi-tions to avoid wearing the cyl- inder boby and piston and ex-hausting black smoke with CO. |
| Exhaust System | Pressure at Air outlet | Normal:13.3kpa <100mm Hg | Excessive pressure will cause to affect the output of engine and increase of noise level. |
| Power Output System | Permissible Load of fuel pum | For H15KA4GR00: 6.2kgm/3480rpm For H20KA4GR00: 6.7kgm/3215rpm For H25KA4GR00: 8.3kgm/3335rpm | Excessive load will cause to breadk chains extended and stall the engine. |
| Electric System | Battery apacity and voltage | Normal: 12V-50Ah | Environmental temperature range:- 15℃~+35℃. |
| Working Environment | Ambient temperature | Normal: 15℃~35℃ | |



| | | | |
|---|---|---|---|
| | Altitude | Normal:<1000m Above sea level | If used under the condition more than 1000m above sea level, the gasoline shouldbe compensanted for actual altitude |

(3)Requirement for Fuel, Lubricant and etc.

| Item | Requirement | Remarks |
|---|---|---|
| Fuel Oil | Lead-free gasoline:octane value: 89(corresponding to JIS K2202-1988 NO.2) | For old A15 and H20 engine, the use of the gasoline with octane value of 85 or more. Corresponding to GB484-93 RQ-NO.90 gasoline, so as to avoid uneven rotation speed and incomplete combustion. Gaso-line containing lead will wear the parts in engine and cause the enviroment to be contaminated. |
| Lubricant | Specification: Class API:SD or higher level (Corresponding to class QD in China or higher level) SAE20W(for general region) SAW10W(for cold region) As usual, it should be replaced once per 200 working hours or 1 months. | |
| LLc freeze Proof liquid | Corresponding to JIS K 2234-1988 NO.2 LLC content: for generel region (>-15℃),30% For cold region(>-35℃),50% As usual, it should be replaced once per 2400 working hours or 12 months or different time accord-ing to working conditions. | Freeze-proof liquid made in China may be selected accord- ing to parameters in left column. Recommended liquid is long-lift rust/freeze-proof liq-uid of FD-2(-35℃). |