

### **Refuelling Appliance for Motor Vehicles with CNG Drive System**

### **Operating Manual for CNG MJ05 Type**

Valid for modification Standard, Mild Climate (MC), diverse eletrical versions



This appliance can only be operated in accordance with this operating manual



### **CONTENTS**

1.	Safety Instructions	3
A.	Maintenance of CNG Refuelling Appliance MJ05 Components	3
B.	Operating Manual	3
C.	Installation of Refuelling Appliance	3
D.	Use of Refuelling Appliance	3
E.	Safety Instructions	3
F.	Warning Signs Used	4
G.	Certificates and Regulations.	4
2.	Introduction	5
3.	Technical Specifications	6
4.	Installation	7
5.	Attendance	10
6.	Operation	12
7.	Designation - Name Plate	16
8.	Warranty Conditions	17
9.	CE Declaration of Conformity	20
10.	Warranty Certificate	. 21

1.





### **Safety Instructions**

Attention – important: Before using the appliance for the first time, read carefully these safety instructions.

# A. Maintenance of CNG Refuelling Appliance MJ05 Components

Individual CNG appliance MJ05 components are not designed to be maintained by the end user. All service actions or repairs must be carried out by a trained person authorised for these activities by the company MOTOR JIKOV Strojírenská a.s. The exception is checking actions described below in this operating manual, in particular compressor oil check and refilling. The user's actions other than those defined by this operating manual can result in serious injuries and give reason to abolishment of the product guarantee.

### **B. Operating Manual**

Before installing and using the appliance, read carefully this operating manual and follow its instructions. In case of doubt about installation and use, please contact an authorised dealer/service department of the company MOTOR JIKOV Strojírenská, a.s. or the company itself.

### C. Installation of Refuelling Appliance

The unit is designed for operation in outdoor as well as indoor spaces. Installation in indoor spaces is only possible if the space is well ventilated and installation is in accordance with the local fire and other regulations. Do not install the appliance under or in the vicinity of windows or in the spaces under which gas could potentially be accumulated. The appliance can be exposed to rain and snow but free inlet/outlet to and from a ventilation grill must be ensured. Thus, see to it that accumulation of dirt, leaves or snow does not occur at these places. The appliance and a vehicle being filled must only be situated so that they are exposed to the same ambient temperature during filling. At a distance of 3 m from the refuelling appliance, there must not be any source of flame and heat that could result in gas ignition, this space must be marked with respective marking indicating ban on open fire. The space where the refuelling appliance is situated must be provided with a dry-powder extinguisher.

### D. Use of Refuelling Appliance

The appliance is only designed for filling the vehicles with CNG drive system. Only accessories supplied by the manufacturer can be used for filling. In particular it is a filling hose with an NGV1 standard connector. Use of the unit for purposes other than specified can result in serious injuries or death.

### E. Safety Instructions

- **a.** Before filling, turn off an engine of the vehicle to be filled, apply its brakes and remove sources of flame at a distance of 3 m from the unit and the vehicle to be filled. There must not be any persons in the vehicle being filled.
- **b.** In case you smell natural gas, turn off the gas supply to the unit and the vehicle, ensure the proper ventilation with fresh air and contact a worker of the authorised dealer/service department. Methane sensor will issue acoustic signals and the operation of appliance will be interrupted. The appliance cannot be started as long as there is gas presence. Ensure elimination of all sources of open fire. It is necessary to become aware of basic characteristics of natural gas and take them into account during work.
  - i. Natural gas has density of 0.7 kg/m<sup>3</sup> (it is lighter than air)
  - ii. Ignition temperature is 650°C
  - **iii.** When used in engines, it has octane number 120-130 (engine is more silent)



- **iv.** Lower explosion limit is 4.4% of volume when mixed with air (activity of methane sensor in the unit is adjusted so that it is activated at concentrations from 10% of lower explosion limit)
- **v.** Natural gas is filled to vehicles at 200 bar at 15 degrees of Celsius. Every 1 extra degree means change of pressure by 1,5 bar.
- **c.** The filling hose must be maintained and it must be handled so that its damage due to abrasion or squeeze could not occur. In case you suspect that the filling hose leaks, have it evaluated or replaced by an authorised dealer/service department. The vehicle being filled must be at a distance at least 3 m from the refuelling appliance.
- d. Do not perform cleaning of the unit's external casing with means other than water or soap water. Do not use acetone or other solvents.

### F. Warning Signs Used



No smoking and open fire



Do not use water nor foam extinguishers



Danger! Electrical equipment



Danger of fire



Danger of gas explosion



Read instructions



Attention - important

### **G.Certificates and Regulations**

The unit was designed and is in accordance with the technical recommendation of the Czech Gas Association TDG 982 03 - Refuelling Appliance for Motor Vehicles with CNG Drive System, resulting from prEN13945 prepared by the gas companies and the IANGV (International Association for Natural Gas Vehicles).

Furthermore, the manufacturer submits the CE Declaration of Conformity attached to this manual. The Declaration of Conformity is the document in which the manufacturer declares that the product is launched on the market in accordance with all basic requirements for health safety and protection. By signing the CE Declaration of Conformity, the manufacturer is to use the CE mark on the product.

Conformity with the Pressure Equipment Directive (97/23/ES, Government Decree No. 26/2003 Coll.) was certified by Notified person No. 1221 of the company TÜV NORD.



#### 2. Introduction

The CNG refuelling appliance MJ05 is a compact appliance for natural gas filling into motor vehicles with CNG drive system. The appliance is designed so that gas enters through a low-pressure gas connection and makes it possible for several vehicles per day to be filled. During the vehicle filling, vehicle filling time depends on the tank size (e.g. 70 l tank is filled max. 3 hours, it is usually sufficient for cars to run over 200 km). When full tank has been reached, the unit will be automatically turned off. The unit is intended for small vehicle fleets with the unit operation not exceeding 15 hours per day.

The appliance has a lockable cover under which an appliance control is placed and access to the filling hose is provided. Electrical and gas connections are realised from the rear side, here are situated outlets from relief valves and a blow-down valve.

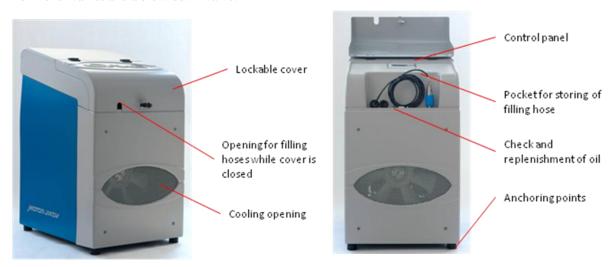
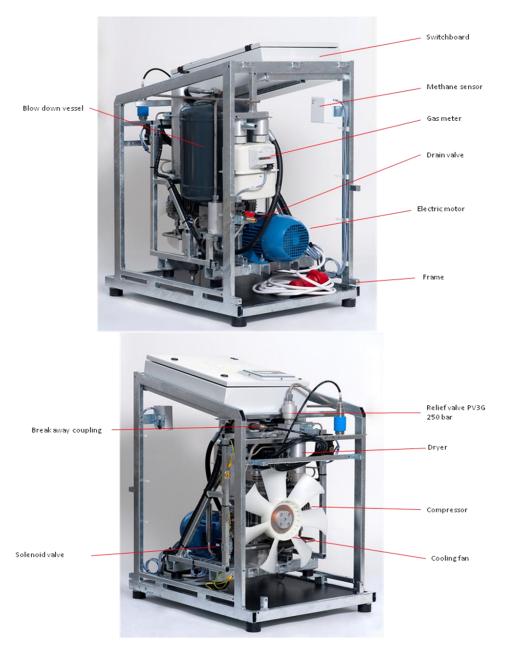






Figure of the appliance without covers and description of components



### 3. Technical Specifications

Maximum permissible pressure: 235 bar Maximum gas inlet pressure to the unit: 0.2 bar

Operating temperature range: -20 to +50°C (for MC type: 5 to 50°C)

Nominal output: min. 5 m<sup>3</sup>/h at 15°C and 200 bar Electrical connection: 3x400 V, 3-phase, 50 Hz Current circuit breaker for connection: 10 A

Electric motor: 2.2 kW, 2,800 rpm

Dimensions (width x height x length) in mm: 600 x 1050 x 780

Weight: 135 kg

Noise emitted at a distance of 5 m from the appliance: 65 dBa

The appliance consists of a compressor for gas compression, an electric motor for compressor drive, control and electronics controlling the filling process and monitoring operating states of the appliance, a



gas dryer, a blow down vessel for compressor blowdown and gas draining. Furthermore, the appliance is equipped with an integrated gas meter for suction gas consumption reading and a methane sensor for gas leakage detection. The appliance is also equipped with compensation for temperature ensuring that compressed gas tanks being filled will not be excessively loaded due to increase of pressure at increased temperature. The appliance is equipped with one filling set as standard that consists of a breakaway unit, a filling hose and a connector. The unit can be equipped with the second filling set as an option for filling two vehicles at a time. In this case the filling time is proportionally extended. The breakaway unit ensures that gas leakage will not occur in case of inadvertent filling hose pull-out (e.g. if driver drove off with the filling hose connected). The appliance is equipped with a fan and the unit casing is provided with vent holes for air exchange. All operation messages are indicated on the text display. The compressor is oil lubricated, warning indication of oil pressure drop can be found on the control display.

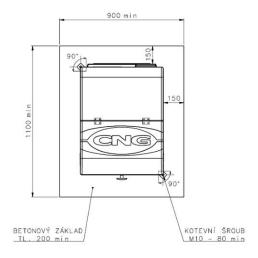
#### 4. Installation

Attention – important: Installation of the refuelling appliance can only be carried out by an authorised dealer/service department.

Before installation check if capacity of pressure regulator and gas meter on the entry to the building is sufficient.

We recommend application of gas filter on entry to the appliance.

Installation of the appliance can only be carried out by an authorised dealer/service department. The appliance must be placed on a solid, flat and non-flammable base (e.g. 900 x 1100 mm concrete slab on 150 mm thick gravel base) and fastened with anchoring bolts ensuring that the appliance will not be damaged in case of hose pull-out from the unit. The anchoring scheme is shown below:



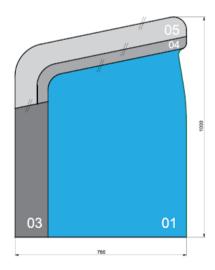
After placed, the appliance must be connected to the outer electric 400 V / 10 A connection and the gas connection downstream of the main gas meter, both these connections must be realised by the certified firms in accordance with valid legislation. This gas connection must be fitted with a shut-off valve, gas should not have inferior quality than with water content of max.  $250 \text{ mg/m}^3$ . Inferior gas quality or solid particles - impurities will affect lifetime of the appliance or its components, thus we recommend to install a gas filter at the inlet before the appliance. Interconnection of the appliance and the gas connection must be performed using a flexible hose approved for gas distributing with length of min. 1 m. Before installation, it is also necessary to check suitability of a gas pressure regulator and the main gas meter at the object inlet with respect to the total consumption of gas appliances, incl. the CNG refuelling station.

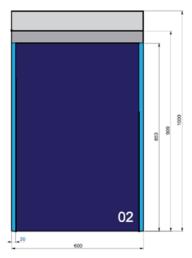
Connection of the unit to the gas connection is realised via a ½" connector positioned in the lower rear part of the appliance to which a flexible hose is to be connected, the other end of which is to be



connected to the gas connection. Before turning on the unit, do not forget to open gas supply to the appliance.

#### Unit dimensions (H x W x D): 1050 x 600 x 780





The appliance power supply is realised to the  $3 \times 400 \text{ V} / 50 \text{ Hz}$  network, the appliance is as standard equipped with a 3.4 m long cable terminated with a 5-pin, 16 A plug.



The gas connection is performed by connecting a ½ " male union (positioned in the rear part of the appliance) to the house gas connection using a flexible hose with a corresponding length, this hose must be approved for use with natural gas. This interconnecting gas hose is not delivered with the product. Distance of the appliance from a wall is min. 0.5 m and the interconnecting hose must not be stretched to avoid transfer of vibration to gas inlet.

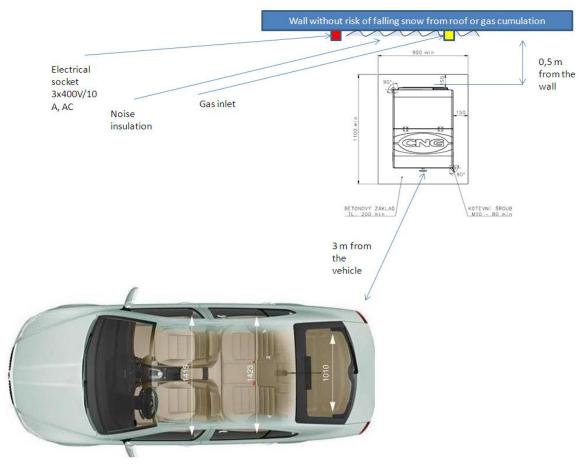




#### For outer installation:

Placement of the appliance must be so that no damage to it can occur for reasons of snow falling (roof cornice) or with any vehicles. Furthermore, it must not be placed under windows and in places where gas could accumulate and noise produced by the appliance could reflect to adjacent residential areas. Vent holes in the appliance casing must be permanently free and must not be blocked by leaves, snow or other objects. The appliance should be situated so that crossing does not occur with a pedestrian path or a road for the vehicle being filled using the filling hose.

Recommended scheme of the outdoor installation with distance separations marked - to reduce level of noise emitted from the refuelling appliance and reflecting from a wall, we recommend to provide the wall with sound insulation.



#### For inner installation:

Installation in inner space (garage) must conform to local fire protection and other regulations. Producer recommends fullfillment of following safety measures for inner installation:

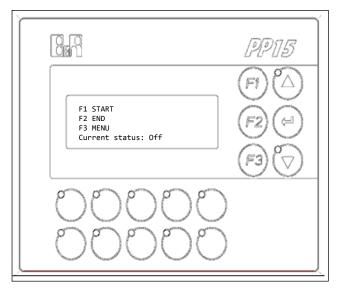
- Doors/gate of the room must lead to an open air area, must be lockable, direction of opening must be to the outside and doors can be secured in opened position (cannot move)
- Room must me sufficiently ventilated by
  - o Natural ventilation by uncloseable openings equipped with net with holes of 0,5 − 1 cm2, these must be situated to the open air area. Openings are placed at opposite walls preferable, 1 at the bottom, 1 at the ceiling. Ventilation opening area cannot be less then 0,5% of total footprint area, at least 100 cm2 at the bottom, 200 cm2 at the ceiling.
  - Forced ventilation connected to methane sensor with capacity of 3 fold exchange of air volume per hour
- Exhausts from relief valves must be lead to an open air area and must be positioned so that it cannot be blocked by any solid objects or water. It cannot be placed under places with potential of gas cumulation.



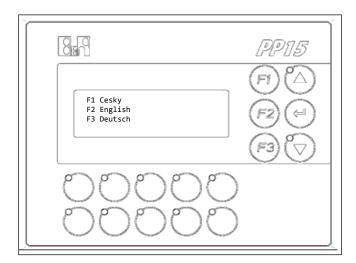
### 5. Attendance

Press F1 button to turn off and F2 button to turn off the appliance. Press F3 button to display the appliance menu. A LED lighted indicates a respective button to be used for return to the previous level. Blinking LED indicates choice button to enter selection.

The menu of a control element enables to search for data about operating hours and to select the display language.



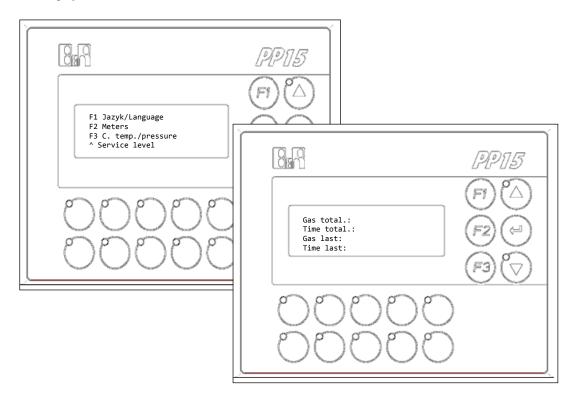
To select the display language, enter the menu from the initial screen using F3 button and then select language using F1. Here select the language version required.





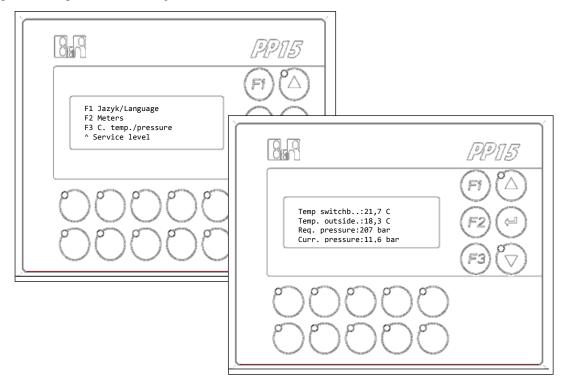
#### a. Number of operating hours and gas consumption in total and for refuelling

Press F3 button to display the main menu from the initial screen, select F2 option to display the total number of operating hours and filling consumption and time and consumption for the last filling cycle. Values shown are in hours and m<sup>3</sup>.



#### **b.** Actual temperature and pressure

Press F3 button to display the main menu from the initial screen, select F3 option to display measured temperature in switchboard, surroundings, adjusted output pressure, and actual pressure present in a pressure tank being filled.



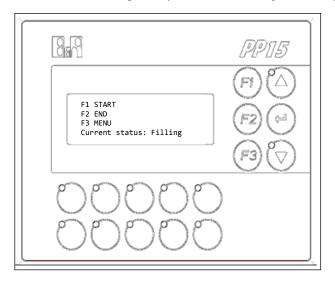


### 6. Operation

The following messages can appear on the text display:

#### a. Filling in progress

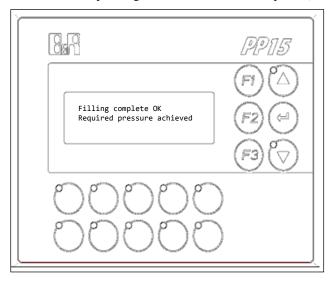
After finished the diagnosis, the appliance starts the filling process. This is shown on the information panel by means of a message according to the display.



#### b. End of filling

Filling can be ended by one of the following ways:

- O Manual turning-off of the appliance using F2 button. This can occur e.g. in case that there is a requirement for a vehicle without complete filling up of tanks. Unit can be restarted in 20 s from end of filling LED lights are off on he control panel..
- Automatic turning-off of the appliance at the moment when the tanks being filled are completely full. After the faultless filling process and its end, there is a message on the information panel according to the display. Unit can be restarted in 20 s from end of filling LED lights are off on he control panel.
- Automatic turning-off of the appliance based on the operating states of emergency (e.g. based on the methane sensor action). In this case there is a respective message about operating state on the information panel (see state messages).





#### c. State messages

The following table shows state messages appearing on the display and their meaning.

Message wording	Message meaning
Perform service check! (1000 h)	Service interval (it is necessary to perform service
TELLOUIN SCIVICE CHECK : (1999 II)	actions - contact the authorised dealer/service dpt.). The refuelling appliance is equipped with oillubricated compressor. The control unit warns of necessity to perform service actions including oil change, filter change, check of valves, possibly change of cartridges for gas drying. Service intervals are specified by the manufacturer for 1,000 hours. To perform service, it is necessary to contact the authorised dealer/service dpt. which at the same time after having performed service actions will cancel the message about necessity to perform maintenance.
Max. number of hours achieved (6,000 hours)	In case that 6,000 operating hours are reached, the message appears and the unit is shut down. To further operate the unit, it is necessary to carry out complete check of the unit and overall check.
No OIL pressure! Check oil level - oil system)	Low oil pressure (it is necessary to check oil level). By means of a pressure switch, the appliance monitors a critical oil pressure drop. This can occur at low oil level, thus it is necessary to check this level and fill up oil. If the problem persists after the unit has been reactivated, a malfunction of the compressor or another part can occur and it is necessary to contact the authorised dealer/service dpt. that must find a cause of oil pressure drop.
Temperature in switchboard out of limits	Switchboard temperature outside limits (temperature in the switchboard is outside the operating limits or fault of temperature sensor occurs - contact the authorised dealer/service dpt.). This state can occur at temperature measured in the switchboard that is lower/higher than permissible operating temperature limits.
Outer temperature is out of limits	Outside operating temperatures (the appliance is outside the operating temperatures, ambient temperature is outside the operating temperatures or fault of temperature sensor occurs - contact the authorised dealer/service dpt.).  This state can occur at temperature measured that is lower/higher than permissible operating temperature limits.
No pulses from gas meter! Gas inlet?	Low inlet pressure (the appliance has not sufficient inlet pressure, the shut-off valve of gas connection is closed or low gas inlet pressure occurs). Check state of the shut-off valve of gas connection. If this is not the case, problem may be in pressure of the gas distribution network.
GAS leakage !!! Check hose connection	Methane (methane sensor indicates presence of natural gas - make sure to vent surroundings and eliminate use of other substances in air - paints, solvents, petrol and restart the unit or contact the



	authorised dealer/service dpt.)
Max. filling time exceeded	Max. filling time (The system is provided with
	function for adjustment of maximum filling time of
	the unit. When this time is exceeded, the unit
	operation is terminated. A longer filling time can
	also indicate leakage in the gas system. Check the
	filling hose for integrity - contact the authorised
No pressure rise! (Check filling hose	dealer/service dpt.)
connection?)	<b>Filling pressure increase</b> (the unit is provided with
Commercial (	function for evaluation of pressure increase during
	filling within the specified time interval. In case of
	this function activation, this can indicate the gas
5 11 1 (5:33: 1 1 1)	system leakage - check the filling hose connection).
Sudden pressure drop! (Filling hose damaged?)	Sudden pressure drop in tank (the unit is provided
	with optional function for evaluation of sudden
	pressure drop during filling within the specified time
	interval. This can indicate sudden gas leakage - e.g.
	burst filling hose)
Power cut longer than limit	Power failure longer than limit (when power
	failure occurs, this message is displayed).
	The message will also be displayed when the
	appliance is disconnected from the electric network
	for other reasons (maintenance, etc.). To put the unit
	into operation, it is necessary to return to the initial
	screen and restart the unit.
Switchboard heating in progress	Switchboard heating in progress (in case that the
	unit design is intended for operating temperatures
	below freezing point, the switchboard is equipped
	with heating function. This heating is performed
	before start of filling. Filling will automatically start
	after temperature is reached).
Pressure increase in off-status!	Pressure increase in off-state (this message
	indicates malfunction of the solenoid valve - contact
	the authorised dealer/service dpt.)
Filling on hold - waiting for pressure decrease	Tank filling stopped (the unit has an optional
	pressure tank filling function and automatic turning-
	on depending on pressure drop in the tank. In case
	this message occurs, the unit is waiting in the stand-
	by mode)
Lost parameters. Battery OK	Loss of parameter settings (this message indicates
	that parameter settings of the unit have been lost, it
	is necessary to contact the authorised dealer/service
	dpt. to perform special settings)
Battery power level critical!	Critical state of battery (battery change is required)
Main switch is off	Circuit breaker turned off (circuit breaker in the
	switchboard of the unit turned off - contact the
	authorised dealer/service dpt. to find a cause and

Oil filling up and oil level check are carried out using a filling pipe after a top cover of the appliance has been opened.



Steps during oil checking and filling-up:

- disconnect the station from the electric connection
- place an empty container for condensate and slowly drain accumulated condensate from the unit by turning a draining valve, then close the valve again. Condensate dispose by environmental friendly way. Do not fill it back to the appliance.
- release a pipe closure for oil filling up (first carefully and slowly release it to release pressure and after that fully release the closure) and pull out an oil gauge, check oil level against a paper sheet and if necessary, fill up recommended oil to maximum level
- insert the oil gauge back and screw the closure home in the oil gauge pipe
- connect the station to the electric connection, the unit is again ready to operate

Attention – important: Carry out oil checking and possible filling up in the first 300 operating hours per 100 hours, then based on experience with consumption. Use only oil recommended by the manufacturer.

#### Figure of condensate draining valve:



#### Position of oil gauge closure:



Check and oil replenishment

#### Oil level check:





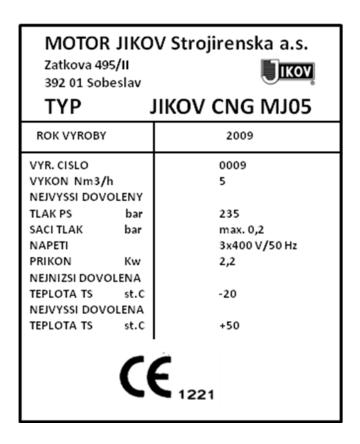
User manual CNG MJ05 index 2011\_11\_30.doc



### 7. Designation - Name Plate

The appliance is specified in the name plate showing the manufacture name and address, designation and type, year of manufacture, serial number, filling output, maximum permissible pressure, suction pressure, voltage, power input, minimum permissible temperature, maximum permissible temperature.

#### Example:





### 8. Warranty Conditions

#### 1. Subject of Warranty

Warranty is provided for products delivered by the company MOTOR JIKOV Strojírenská, a. s.

#### 2. Warranty Period

The warranty period is 24 months from the date of sale to the purchaser, however not later than 30 months from the date of product sale to the seller. Time from claiming the right of liability for defects up to time when the user has been obliged to take over the subject after termination of repair is not taken into consideration.

The seller is obliged to issue a confirmation to the purchaser at what time the purchaser claimed the right as well as about repair execution and its duration. If the product is replaced, the warranty period of the given assembly again starts from the product takeover.

#### 3. Scope of Manufacturer's Responsibility

The warranty is provided for defects caused by material or manufacture. In case of a defect for these reasons, the manufacturer bears the costs for spare parts and costs for disassembly and assembly of defective components. During the warranty period, the manufacturer is responsible for structure, material selection, design and function of the product.

#### 4. Abolishment of Warranty

The warranty is abolished when:

- the appliance is improperly installed;
- gas with inferior quality than specified by the operating manual is used in the appliance;
- the appliance is installed by other than authorised dealer/service department;
- specified service actions and media filling up are not observed;
- the warranty certificate is not filled in and sent to the manufacturer;
- it is impossible to submit the goods warranty certificate;
- the goods has not been used and maintained according to the operating manual;
- the user has made unskilled actions in the goods;
- the goods has been used under conditions or for purposes other than intended;
- intentional overwriting of the manufacturer's data by the seller or the service organisation in the accompanying documentation of the goods;
- any part of the goods is replaced with an unoriginal part;
- the goods damage or excessive wear occurs due to insufficient maintenance;
- the goods has been damaged due to force majeure or the goods breakdown occurs;
- a change has been made in the goods without the manufacturer's approval;
- defects of the goods are caused by unprofessional storage;
- the goods is naturally and commonly worn;
- the specified warranty inspection of the goods has not been carried out or it has not been carried out within the specified time.

#### 5. Making a Claim

The claim is made by the purchaser at the seller. When making the claim, the purchaser is obliged to submit a properly filled-in warranty certificate. Warranty repairs are executed by the seller or by repair shops authorised by the seller. The purchaser is always obliged to contact the nearest contractual warranty repair shop.

#### 6. Warranty Exceptions

The warranty is not provided for parts being commonly worn during use of the machine or parts required to be replaced within the framework of the specified maintenance (e.g. filters, dryer fillings, oil, toothed belt, valves in individual compressor stages). Warranty for the compressor is either limited to 4,000 hours or warranty according to point 2. according to fact which situation is earlier.

#### 7. Law

The other relations between the purchaser and the seller follow the respective provisions of the Civil Code No. 40/1964 Coll., or the Commercial Code No. 513/1991 Coll., as subsequently amended.



Report on execution of service intervals:

Report on execution of service intervals.				
Service interval	Operating hours of machine	Service action was executed by (company name and stamp, technician name and surname, signature)	Day	Note, and number of exchanged part
1 000 h				
2 000 h				
3 000 h				
4 000 h				
5 000 h				
6 000 h				
7 000 h				
8 000 h				
9 000 h				

Item Nr.	Operation		
	Service check every 1000 hours		
	Covers dis/mounting		
GK-9015-01	Dryer refill		
	Oil check and refill		
GK-6216-01	Belt change		
GK-6016-01	Solenoid valves check and clearing (o-rings change)		
	Function check – filling output / time		
	Release of settlings		
	Filling hose check		
	Service card record		
Deviations from given service scheme - additional ta			
	Service after first 1000 hours		
GK-2151-01	Oil filter change		
	change of the oil		
	Every 3000 hours		
GK-2152-01	replacement of valve I		
GK-9071-01	replacement of valve II		
GK-9072-01	replacement of valve III		
GK-2151-01	Oil filter change		
	change of the oil		

These service operations will be count to customer by service company according to valid pricelist.



#### Report on warranty repairs executed:

1.	Warranty repair				
	Claim protocol No.:				
	Date of claim making:				
	Date of repair completion:				
	Defect found, brief description:				
	•	s extended:			
	Repair executed by:				
	Repair shop stamp and signature:				
2.	Warranty repair				
	Claim protocol No.:				
	Date of claim making:				
	Date of repair completion:				
	Defect found, brief description:				
	•	s extended:			
	Repair executed by:				
	Repair shop stamp and signature:				
3.	Warranty repair				
	Claim protocol No.:				
	Date of claim making:				
	Date of repair completion:				
	Defect found, brief description:				
	Parts replaced for which warranty is extended:				
	Repair executed by:				
	Repair shop stamp and signature:				



### 9. CE Declaration of Conformity

Manufacturer: MOTOR JIKOV Strojírenská a.s.

Address: Zátkova 495, 392 01 Soběslav, Česká Republika

Name of machine: Refuelling Appliance for Motor Vehicles with CNG Drive System

Machine type and designation: JIKOV CNG MJ05

The manufacturer declares conformity with requirements of:

Machinery Directive: Government Decree No. 176/2008 Coll. (2006/42/EC) Electromagnetic Compatibility Directive: Government Decree No. 616/2006 Coll. (2004/108/EC)

Low Voltage Directive: Government Decree No. 17/2003 Coll., 2006/95/EC Pressure equipment directive: Government Decree No. 26/2003 Coll. (97/23/EC) Directive for equipment and protective systems intended for use in potentially explosive atmospheres: Government Decree No. 23/2003 Coll. (94/9/EC): The appliance nature is classified in the category III of this directive and it is intended for the zone 2.

The appliance is intended for natural gas compression for use in vehicles intended for this purpose and consists of these pressure components: gas meter, blow down vessel, three-stage compressor, separator, dryer, interconnecting pipes and filling hose.

Conformity with the directive for pressure equipment of category III according to module B+C1 was certified by notified person No. 1221 of the company TÜV NORD Czech s.r.o. The certificate number for module B is 1221-0791/09 of December 23, 2009.

On behalf of MOTOR JIKOV Strojírenská, a. s.

JIŘÍ SLÍVA – MEMBER OF BOARD OF DIRECTORS

IN SOBĚSLAV, DATE: 30. 12. 2010

N. OTOR JIKOV Strojírenská a.s.
 Zátkova 495
 392 01 Soběslav II

IČ: 251 65 020 / DIČ: CZ25165020



### 10. Warranty Certificate

#### Copy for the customer

Name of product: Refuelling Appliance for Motor Vehicles with CNG Drive System

Type of product: CNG MJ05

Serial number of product		
Serial number of compress	or	
Serial number of electric m	otor	
Serial number of blow dow	n vessel	
Serial number of PV3G reli	ef valve	
Evidence number of switchboard		
Serial number of control unit		
Serial number of dryer		
Serial number of gas meter		
State of gas meter		
Revision number of all the electric equipment		
Output control	name and	
performed by	signature	
	date	
Date of sale to dealer or seller		
Dealer or seller		

The above product was handed over to the purchaser without defects including the respective business-technical documentation and accessories.

The purchaser was properly informed about characteristic features of natural gas, vehicle filling procedure, principles of correct attendance and technical maintenance of the product.

#### To fill in by the seller:

Name and surname of purchaser	
Address of purchaser	
Signature of purchaser/trained person	
Place of sale to purchaser	
Date of sale and installation at purchaser	
Name of seller	
Address of seller	
Stamp and signature of seller	



## Copy for the seller (send copy of this certificate to the manufacturer for product registration)

Attention – important: When this certificate filled in is not sent to the manufacturer, the manufacturer does not provide any warranty.

Name of product: Refuelling Appliance for Motor Vehicles with CNG Drive System

Type of product: CNG MJ05

Serial number of product		
Serial number of compresso	or	
Serial number of electric m	otor	
Serial number of blow dow	n vessel	
Serial number of PV3G relie	ef valve	
Evidence number of switchboard		
Serial number of control unit		
Serial number of dryer		
Serial number of gas meter		
State of gas meter		
Revision number of all the electric equipment		
Output control	name and	
performed by	signature	
	date	
Date of sale to dealer or seller		
Dealer or seller		
		-

The above product was handed over to the purchaser without defects including the respective business-technical documentation and accessories.

The purchaser was properly informed about characteristic features of natural gas, vehicle filling procedure, principles of correct attendance and technical maintenance of the product.

#### To fill in by the seller:

Name and surname of purchaser	
Address of purchaser	
Signature of purchaser/trained person	
Place of sale to purchaser	
Date of sale and installation at purchaser	
Name of seller	
Address of seller	
Stamp and signature of seller	