

# VEHICLE RETURN GUIDELINES







# FOREWORD

Dear customer,

This damages catalogue aims to prepare you for returning your IVECO truck when your usage period comes to an end.

The returned vehicle must comply with its original description, particularly as regards optional extras, accessories and equipment. Furthermore, the vehicle must only be fitted with parts recommended by the manufacturer.

The examples provided not only show the most common traces of wear caused by normal vehicle use but also the most common types of deterioration due to improper use.

Traces of wear accompanied by a green symbol in the following pages do not, in principal, incur any fees and are not subject to additional costs as regards the end of contract breakdown.

Unacceptable damage is highlighted with a red symbol. All damage is detailed in an evaluation report ordered by lveco and carried out during an appraisal for all returned vehicles. Damage evaluation criteria is based on this document.

This damages catalogue is available and can be accessed at **www.oktrucks.com**. We hope we can work cordially together and wish you a safe journey!

Your IVECO team





# **RETURN CONDITIONS**

### **RETURN LOCATION**

Vehicles are returned to storage yards stipulated in the protocol signed between the parties. The haulier for the transferor must follow the rules of receipt of the storer.

### **GENERAL CONDITION OF THE VEHICLE**

Each vehicle must be returned in the following condition:

- Be in working order, red malfunction warning lights for main vehicle elements off (orange warning lights not included)
- Have enough fuel, the fuel warning light off
- Be usable in complete safety for transfer by road, safety devices should be in perfect condition (e.g. no faulty brakes, tyres not worn down to the frame)
- Be revised according to the maintenance conditions set out by the manufacturer
- Be clean on the outside and inside in order to be able to evaluate any restoration fees
- Openings must be perfectly sealed so that the vehicle is watertight
- The structure must be damage free (skirt and rear wings intact, roof space), it must not have been subject to any structural realignment or a VE ranking
- Have all the original accessories and features when returned, subsequent refitting of removable parts may be refused by the protocol
- Only fit parts recommended by the manufacturer
- The vehicle must not have been subject to a theft report
- The tyre assembly must comply with the manufacturer's standards
- Valid MOT
- Inerasable odors in the cab (occurred from pets, chemical products etc.)

Upon failure to apply or justify this, the vehicle may be refused and/or fees charged based on the conditions stipulated in the protocol signed between the parties.

# VEHICLE EXAMINATION

#### **IDENTIFICATION**

The vehicle is identified by reading the model, chassis number (full VIN), registration number and mileage. Additional information regarding the presence of the following parts:

- Accessories and removable parts depending on the vehicle finish or model. Example: Additional seats, mats, luggage cover, net, wind guard, etc.
- Spare wheels and tools for changing/refitting wheels. Example: Jack, tool kit, repair kit or inflation kit, and anything delivered with the vehicle.
- Removable parts for vehicle guidance/video/audio functions. Example: SD card, CD-ROM, telephone, and anything stated as having been delivered with the vehicle initially and physically returned with the vehicle.
- Spare keys and vehicle opening (code) cards. User manuals and maintenance booklet.

The procedure for returning certain aforementioned parts is outlined in the protocol signed between the parties. The evaluator will take these features into account when checking the vehicle, as will the back office costing department when valuating the estimation.



### **TECHNICIAN DUTIES**

The inspection carried out on the vehicle bodywork is static. It will take place at the storage facility under the conditions set out by the parties.

The technician identifies the damage with low-angled light. The surveyor will identify deformations, defects, scratches, indentations, chips, corrosion, missing and broken parts as well as alignment faults. For light commercial vehicles (LCV): The damage noted is that which is visible from the front.



### TYPE OF DAMAGED DETECTED

The damage detected is noted depending on its nature: Chips, scratches, indentations, broken part, missing part, defect, etc.

#### DESCRIBING DETECTED DAMAGE

Damage is detected and described depending on its size and number. It may be evaluated, simply noted as a memo, or not noted depending on the criteria below.

#### TYPE OF REPAIR

- Fixed hourly rates: Cleaning, clearance, SR repair, buffing, etc.
- Time spent on bodywork according to the extent of the damage and the methods chosen
- Time spent on repairs, painting and spare parts based on manufacturer's schedule

Fixed fee, time and tariff tables are annexed to the protocol.

#### **TEST DRIVE**

During the test drive, the vehicle's mechanical organs are assessed. You may be charged for malfunctions, according to the rules specified in the protocol.

#### Test at idle – Traffic jam speed

- Standard start-up, on all cylinders
- Automatic transmission: Checking of locking in position "P" on a slope and no start-up with gear engaged
- Regular operation at idle
- Full lock from left to right: Transmission, front axle assembly, bearings, etc.
- Fastened seatbelt warning
- Mechanical sound
- Ambient internal sound
- Air conditioning system operation
- GPS test: Programming of a destination

#### **Acceleration phase**

- Clear acceleration: powertrain support test (engine silentblock), ESP, ASR (if not possible)
- Operation of supercharging system: Turbo – Compressor
- Gearbox: Switching of all gears (increase, no knocking, quick synchro)
- Mechanical vibrations: Engine, transmissions, exhaust, linkages, etc.



#### Acceleration phase 50-70 km/h

- Damper test: Front and rear linkage assembly on uneven road or retarders
- Noises when driving: Bearings, deformation tyre
- Steering wheel: Point 0 alignment, maintenance and directional stability - steering wheel resistance
- Aerodynamic noises: Air intake, stifling
- Clutch slipping test between 4th and 5th when going up and down gears
- GPS test transfer and scrolling of the position (presence of CDs)

#### **Deceleration phase**

- Progressive braking pressed: Efficacy, maintenance in line, vibrations
- Gearbox test: Change all gears down to 2nd
- ABS activation test (speed of 15-20 KM/H)
- Engine ventilation (at end of test)
- Test return, at stop and from the outside, odours: Brakes, oil, exhaust

#### PARTS CHECKED

#### Engine compartment

- General appearance: Fluid leakages, traces of oil, corrosion, levels visible to the eye,
- End of longitudinal members, radiator crossmembers and elements connected
- Examination of front end
- Battery

#### Front end

- Alignment of parts
- Roof space, cabover
- Windscreen
- Cover
- Light clusters
- Grille, front bumper
- Skirt, spoiler

#### Left side: Exterior

- Alignment of parts
- Front wing
- Front wheel arch and trim
- Front wing repeater
- Rear-view mirror
- Door (s)
- Underbody
- Side panels
- Sliding door
- Shaft
- Rear wheel arch and trim
- Roof space
- Trims and roof trim
- And any element or part that is an integral part of the vehicle

#### Rear end

- Roof space
- Load stop
- Tailgate/boot trim
- Check opening of interior compartments
- Left and right boot trim
- Rear seat trim
- Breakdown accessories
- Loading platform

- Side panels
- Panel trim (original, wood)
- Wheel arch
- Roof space, cabovers: Brakes, oil, exhaust
- Alignment of parts
- Boot/tailgate
- Rear light
- Headlights
- Plate light and support
- Bumper
- Rear skirt
- Exhaust (deformation)
- Footboard
- Optional: Tailgate operation

#### **Right side: Exterior**

- Alignment of parts
- Front wing
- Front wheel arch and trim
- Front wing repeater
- Rear-view mirror
- Door (s)
- Underbody
- Side panels
- Sliding door
- Shaft
- Rear wheel arch and trim
- Roof space
- Trims and roof trim
- And any element or part that is an integral part of the vehicle

#### Wheels, rims and spare wheel

- Alignment of parts
- Front wing
- Trim (steel rim)
- Size, dimensions, tyre speed index reading
- Type of spare wheel
- Tyre tread wear reading: Central, exterior
- Examination of tyre sidewall

#### Front and rear seats/bed

- General appearance of the vehicle: Smell, cleanliness, stains
- Operation of openings and locks
- Condition of door insides and entries
- Underbody, threshold covers. Door seals
- Window, door trim
- Floor trim
- Operation of seat controls, present
- Seat belt
- Seat trims: Seat, backrest and headrest
- Rear-view mirror
- Windscreen
- Instrument panel and console
- Roof space, sunvisor, ceiling storage
- Load stop



#### Interior: Driver's seat

- Checking of controls
- Mileage reading
- Engine start-up and notification of any warning lights that are on
- Full wheel lock for further examination of tyres





Repair method involves remove dent and/or mastic application and/or

Chemical and mechanical process, dry or wet depending on the stain

Parts are broken or badly repaired or repair cost is higher than a new



EXTERNAL APPEARANCE OF THE VEHICLE	14
PASSENGER COMPARTMENT	32
ADDITIONAL STRUCTURES	40
VEHICLE TECHNICAL DETAILS	54
OTHERS	62



# **EXTERNAL APPEARANCE OF THE VEHICLE**

# **BODYWORK AND ADD-ONS: CHIPS, SCRATCHES, INDENTATIONS, DEFECTS AND CLEANING**





Chip  $\leq$  5 mm in diameter and  $\leq$  20 chips



Ē Chip on door edge



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Polishable damage or scratch  $\leq$  50 mm



Ē Indentations  $\leq$  50 mm in diameter with unaltered paint, no hail damage and significant pockmarks within in the limit of 5 indentations per panel

## **OTHERS:**



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- Small grazes, e.g. on the door edges
- Small stone impacts (no through to the base coat) on the front of the vehicle
- Slight pollution damage, can be resolved with polishing
- ≣ Faint marks, e.g. from car wash
- Ē Faint scratches in the paint at the loading edges
  - Slight differences in colour due to the use of different trims or base materials and ageing

























Scratches with oxidation, chemical deposit or other that cannot be cleaned





Chip on door edge



# **BODYWORK AND ADD-ONS: CHIPS, SCRATCHES, INDENTATIONS, DEFECTS AND CLEANING**









Repainted with fault (dimpled appearance). Paint too thick, insufficient, with inclusion of particles



Difference in shade following repair NB: Tolerance accepted linked to ageing of the vehicle



Trace of glue. NB: Presence of tags or graffiti, valuation in real time during cleaning and/or buffing (if not possible to clean, replace)



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PAINTING

## OTHERS:

	Significant damage due to pollution or chem restore the paint
	Significant colour deviations e.g. following pa
	Unprofessional paint repairs
	Large stone impacts (through to the base co
$\mathbf{O}$	Removal of material and/or deformation of t



Marks left by advertisements following the description of the bodywork.











nical deposits, if it is necessary to

paint retouches

oat)

the bodywork and add-ons



# EXTERIOR MIRRORS, ACCESS, DOORS, BUMPERS, REAR AND SIDE UNDERRUN PROTECTIONS, MUDGUARDS AND MUD FLAPS







Scratches that cannot be felt with your nail and surface  $\leq$  45 cm<sup>2</sup> (equivalent to a credit card)



Faint superficial scratches, e.g at the fuel filler cap, hatches, door handles, bumpers and trims



Faint scratches in the paint at the loading edges





Scratches that can be felt with your nail or surface > 45 cm<sup>2</sup> (equivalent to a credit card)



 $\bigcirc$  Removal of material, broken part

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Removal of material or deformation feasible or economical to repair



# Still Berlin PAINTING

# EXTERIOR MIRRORS, ACCESS, DOORS, BUMPERS, REAR AND SIDE UNDERRUN PROTECTIONS, **MUDGUARDS AND MUD FLAPS**







≣ Slight surface scratching ≣ Slight deformation



 $\bigcirc$  Deep scatches and deformation



 $\bigcirc$  Deep discolouring due to chemical elements





Slight discolouring













Removal of material, broken part



# **VEHICLE EXTERIOR APPEARANCE, FRAME AND CATWALK**













Slight paint scuffs around top frame, rear or crossmember

Surface scuffs around catwalk



















# **GLAZING AND LIGHTS (REAR AND FRONT LIGHTS)**





Note: The field of vision is defined by an A3 sheet of paper positioned vertically in the steering wheel axle and centred vertically on the windscreen.





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PAINTING



Chips  $\leq$  20 mm, outside of field of vision and  $\leq$  3 chips



Chips > 20 mm, number > 3 chips, or chips in the field of vision, cracked, poorly fitted with defect, sandblasted or scratched Note: If the windscreen is damage in the driver's field of vision, local legislation must be checked.

## OTHERS:

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Faint scratches on the rear lights

Light stone impacts on the headlights

Stone impacts repaired professionally, not located in the driver's field of vision

















# **GLAZING AND LIGHTS (REAR AND FRONT LIGHTS)**









 $\bigotimes$  Rear and front lights broken





 $\bigcirc$  Scratch in the lighting field, crack, condensation, broken or broken fastening













# **TYRES, RIMS AND WHEEL COVERS**





Tyres: Notch ≤ 3 mm deep (CONFORMS)



Tyres: Base of groove depth  $\geq$  7 mm (CONFORMS) Note: The wear of the tyres is measured in the most worn groove on the tyre.





Tyres: Notch > 3 mm deep, removal



Tyres: Base of groove depth < 7 mm Note: The wear of the tyres is measured in the most worn groove on the tyre.

 $\checkmark$  Presence of tyres made by different manufacturers on the same axle

Manufacturer's sizes and indices are not respected

 $\bigwedge$  A tyre is retreaded or resized





Rims and wheel covers: Multiple superficial scratches with or without removal of material

**Note**: Tyres no longer than the first registration date

#### **TYRES ACCEPTED:**

- Bridgestone, Michelin, Pirelli, Goodyear and Continental
- Tyre brands belonging to above mentioned tyre groups e.g. Tyre group Continental includes following brands: Uniroyal, Semperit, Barum, Viking, Mabor (Any brands produced in China, India, Vietnam are not accepted)













Wheel covers: Deformed, broken, material missing or removed



# **TYRES, RIMS AND WHEEL COVERS**









- Rim lining damaged, non-compliant rim. Valuation of a dimensional check to check safe state of the vehicle
- $\bigcirc$  Cracks, deformations, significant loss of material, significant paint damage on the rims
- $\bigcirc$  Significant corrosion on the rims and all terrain or winter profile tyre





**PASSENGER COMPARTMENT** 

# - Alt PAINTING

## **UPHOLSTERY, FLOOR COVERS, COVERS, TRIMS AND ROOF SPACE**





Ē Burn  $\leq$  3 mm and without perforation of the cover





Light soiling can be removed by chemical cleaning carried out by a professional







Slight decolouration due to sun rays







 $\rightarrow$  Burn > 3 mm, perforation or tear in the cover, without deterioration of the foam







 $\bigcirc$  Fabric and plastic trim: Tear, hole > 5 mm, indelible marks















plastic trims I hour flat rate if aesthetically acceptable and repairable



# UPHOLSTERY, FLOOR COVERS, COVERS, TRIMS AND ROOF SPACE











Significant soiling, stains and smells requiring chemical cleaning carried out by a professional.

















## **INSTRUMENT PANEL, STEERING WHEEL, INSTRUMENTS, CONTROL SYSTEMS, HEATING, VENTILATION, AIR** CONDITIONING, INDEPENDENT AIR CONDITIONER, **ADDITIONAL HEATING**









Ē Traces of wear on the instrument panel, instrument cluster and steering wheel







Slight decolouration due to sun rays



Light soiling can be removed by chemical cleaning carried out by a professional







X	$\mathcal{O}$	Control parts, seat or trim parts missing, bro
X	Ð	Systems, seatbelt, seat control, displays and v



Scratches on the combined instrument panel and other visuals or holes in the field of vision

### **OTHERS:**

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 $\hat{\mathbf{v}}$ 



Signs of carbonisation

Significant discolouration

X Clogged filters

Steering wheel cover damaged















oken or pierced

visuals not operating



# **ADDITIONAL STRUCTURES**



# **SWAPBODY ANCILLARY FRAME**













Signs of wear typical of the expected use







- Breaks and deformations
- $\bigcirc$  Serious deformed and broken end stops

Broken twistlocks

# NOTE:

Strong deformation might be subject to refuse vehicle return.















# **CAB SPOILERS AND BOX BODY STRUCTURE**





Ē Cabover and deflector: Faint scratch in keeping with the vehicle appearance



Ē Side panels: Faint scratch with material removal ≤ 20 cm









Side panels: Scratch with removal of material > 20cm within economic repair. Option to paint half panel







- Underbody side profiles: Faint scratch
- Bike racks: Faint scratch
- ≣ Side and rear doors: Slight deformation: Repair time  $\leq I h$
- ≣ Flooring: Slight deformation, superficial wear
- Roof space: Slight deformation in keeping with the vehicle appearance
- Ē Upholstery and rods: Carpet torn or detached











Cabover and deflector: Significant crack, missing part or beyond economic repair



 $\bigodot$  Wood side panels: Damaged wood support ≥ 20 cm

# **CAB SPOILERS AND BOX BODY STRUCTURE**





 $\bigcirc$  Fibre side panels: Deformation on lower part, length of > 1 m NB: Replacement of the front panel of the

underbody requires removal of the underbody.



Underbody side profiles: Deformations beyond economic repair, perforations, removal of a section of the profile







Tail lift: Deformations of platform within economic repair



















# **BOX BODY STRUCTURE**





 $\bigcirc$  Tail lift: Deformations of platform beyond economic repair, broken or incomplete trim



Side and rear doors: Significant deformation: Repair time > I h within economic repair, closure not sealed



 $\bigodot$  Side and rear doors: Doors bent at fastening points for hinges, broken, perforated, or beyond economic repair



- Flooring: Deformations or perforations within economic repair
- Deformations or perforations beyond economic repair. Option to exchange flooring by section



Roof space: Perforated or torn within economic repair



 $\longleftrightarrow$  Roof space: Frame damaged, leather not within economic repair



Upholstery and rods: Rods and upholstery deformed within economic repair



















Upholstery and rods: Rods, fastenings, upholstery missing or deformed beyond economic repair



# **PLATFORM BODY**







≣ Faint scratches, rail deformations with a repair time  $\leq$  1 h







Deformations in the rails not beyond economic repair, closure not possible or not sand-proof























# **TARPS**















Faint surface scratches (can be removed with cleaning)



- Faint marks, e.g. from car wash
- Slight differences in colour due to the use of different trims or base materials and ageing

























# DRIVE CHAIN, STEERING, CHASSIS, SUSPENSION, **ORGANS, ADDITIONAL ORGANS**







Ē Signs of wear that do not impair road safety





 $\blacksquare$  Light traces of oil (no dripping)





 $\gtrsim$  All leaks from the engine, gearbox and differential, hydraulic suspension and dampers



 $\overleftrightarrow$  Leaks from the steering gear and power steering pump

## **OTHERS:**

















# **EXHAUST SYSTEM**











Condition conforms to technical inspection



Presence of leaks

Image: Constraint of the second secon



Damage due to external shocks

🧩 స Missing equipment, e.g. exhaust outlets torn or deformed

















# **BRAKE SYSTEM**





Normal condition and conforms to the age and mileage of the vehicle Brake pads thikness > 30 %











# OTHERS:

















# J. PAINTING

# **FUEL TANK**







Minor fuel tank scratches

Very slight, no more than a 10mm in diameter, deformation of fuel tank without sharp edges which do not threaten leaks and proper operation of the tank









- $\bigcirc$  Fuel tank deformation which can threaten leaks, proper operation and reduce capacity of the fuel tank
- $\bigodot$  Any welded repairs and or patches are not acceptable
- $\bigcirc$  Damage to fuel tank mountings is not acceptable
- $\bigcirc$  Incorrect fuel tank cap
- Any modifications in order to change the shape and volume (capacity) of the fuel tank (only original tanks accepted)
- $\bigodot$  Deformation that fragilizes the fuel tank

















# STANDARD EQUIPMENT AND DOCUMENTATION, **MAINTENANCE, REVISIONS**



In order to avoid all additional fees and costs, before returning the vehicle check that all the parts and documents belonging to the vehicle are complete. You can use the following list to do this:

- Service booklet
- Onboard manual/operating manual
- Registration certificate  $\checkmark$
- Spare wheel or compressor and inflation product
- Navigation CD/DVD
- Radio code card (if applicable)
- Key and spare key or Code Card if applicable
- Remote control with key
- Tank card(s)
- Service card(s)
- Tyres (summer and winter tyre set)
- Trailer hitch with key
- Valid MOT
- Tacho
- Ancillary
- Registration Documents

# **VEHICLE MAINTENANCE**

#### INTRODUCTION

The maintenance activities must be carried out in line with the requirements of the law, the guidelines of the Maintenance and Repair Agreements or any other Service agreement where present and Iveco User's Manual.

It is always recommended to carry out vehicle maintenance in compliance with current legislation and instructions recommended by the manufacturer, and to make use of official IVECO maintenance and repair programs which always guarantee maximum efficiency as they provide vehicles with original spare parts and through a skilled specialist .

Listed below are the documents to be produced when returning the vehicle according to the different possible cases:

#### IF THE VEHICLE HAS A MAINTENANCE CONTRACT WITH IVECO AND THE **INTERVENTIONS ARE CARRIED OUT AT AN AUTHORIZED IVECO NETWORK** WORKSHOP

No document is required

#### IF THE VEHICLE DOES NOT HAVE A MAINTENANCE CONTRACT WITH IVECO

authorized lveco network workshop

#### Alternative Cases:

- The invoice issued by the IVECO authorized workshop, with information relating to:
- / maintenance data
- ✓ unique references to the vehicle (VIN or license plate) and mileage at the time of the intervention,
- / list of components, lubricants and fluids (with the lveco PN or the reference to their equivalence in the case of non-original materials) used
- Iist of maintenance operations carried out

#### When maintenance interventions are carried out at the customer's expense at an

The warranty booklet with data and stamp of the maintenance carried out at the authorized IVECO workshop

#### When maintenance interventions are carried out at the expense of the customer in a workshop that is not part of the IVECO authorized network

The invoice issued by the workshop, with information relating to:



- ✓ unique references to the vehicle (VIN or license plate) and mileage at the time of the intervention
- Iist of components, lubricants and fluids (with the lveco PN or the reference to their equivalence in the case of non-original materials)
- Iist of maintenance operations carried out

#### When maintenance interventions are carried out at the customer's expense in its internal workshops

- The purchase invoices of the materials used (components, lubricants and fluids) original or equivalent, in which the purchase data is previous or concurrent with the data of the maintenance intervention
- The internal order that reports that the maintenance intervention was performed on a specific vehicle with unique references to the date of maintenance and to the vehicle (VIN or license plate) and mileage at the time of the intervention

# **FREQUENT QUESTIONS**

#### I. What is the vehicle return process?

You will contacted via letter or email in a timely manner, in order to remind you of the rules for returning the vehicle and to give you time to prepare the vehicle in line with the contract.

A preliminary inspection is carried out by IVECO apro approximately three months prior to the vehicle return date. The scope of the preliminary inspection is to inform you about the status of the vehicle and its damages with the aim that you have the necessary time to repair it before the vehicle return. On this ocassion the final inspection will be carried out based on the Vehicle Return Guidelines.

The damage estimation will be carried out by a third party.

Return location: The vehicle must be returned to the set location in accordance with the return conditions.

#### 2. What do I do if my contract has been extended or I am interested in buying my vehicle?

IVECO will contact you in the right time prior to the contract expiration to introduce the possible alternatives: vehicle purchase or contract extension. If you are interested in extending your current contract or buying the vehicle, please contact IVECO or your dealer in the three to six months prior the expiration date of your contract. If a contract is extended, the period and mileage will be requested by your commercial point of contact in order to calculate your offer extension.

#### 3. When must I return my vehicle?

On the date agreed upon with IVECO or later on during the last day of the contract in accordance with the return conditions.

4. What happens if I return my vehicle after the expiry date of the contract?

Charges will be applied if the vehicle is returned after the date stated in the contract.

#### 5. What happens if my vehicle does not comply with the return conditions?

Charges will be applied for the repair work required to ensure the return conditions are met, unless the level of damage is greater than the authorised threshold stated in the repurchase agreement.

#### 6. What happens if I do not agree with the repairs I am charged for?

The inspection carried out by an independent expert is final; if you do not agree with it, you can request your own inspection by an independent expert at your own cost within 2 weeks from the date when the evaluation has been informed to you.

# CONTRACT OPTIONS

#### CONTRACT EXTENSIONS

If you would like to extend your contract, please contact your dealer or the OK Trucks department of IVECO 1 td.

#### **VEHICLE RETURN**

If we do not receive a request for an extension of your contract, we will assume that the goods are returned to us on the date of the end of your contract previously agreed upon.

These vehicle return guidelines are available at **www.oktrucks.com** 





# **APPENDIX TO THE VEHICLE RETURN GUIDELINES**




# After the expert inspection

The protective covers on the CNG cylinders removed to allow the expert inspections to be carried out must be refitted by the customer before the vehicle is taken to the storage facility.





PREAMBLE	
ADMINISTRATIVE AND MARKINGS	
LNG TANK	
RETAINER BRACKETS AND BANDS FOR LNG TANK	
RIGID LINES FOR LNG TANK	
RELIEF VALVES	
CNG CYLINDERS	
CNG CYLINDERS PROTECTIVE COVER	
RETAINER BRACKETS AND BANDS FOR CNG CYLINDERS	
RIGID LINES FOR CNG CYLINDERS	
CNG FILL RECEPTACLE	

ADDITIONAL HEATER TANK

CNG FILL RECEPTACLE PROTECTION BOX

INSPECTION OF

### **ADMINISTRATIVE AND MARKINGS**





Presence of an up-to-date validity certificate legible for LNG tank and CNG cylinder.





Original LNG tank and CNG cylinder identification markings absent or illegible  $\rightarrow$  charge for replacement of CNG/LNG tank with a new one.

Absence of an up-to-date validity certificate for the tanks  $\rightarrow$  gas certificate fixed charge of  $\in$  1500 before tax.

**Note:** For the LNG tanks, no European-wide procedure currently has been defined for the periodic requalification after 10 years. The date of validity on the original identification markings must be checked.



# **LNG TANK**











LNG tank must be returned in proper conditions as illustrated in pictures.

#### Legenda









Evidence of tank repairs  $\rightarrow$  charge for tank replacement.

Tank holed  $\rightarrow$  charge for tank replacement.

Dent in outer shell:

- Maximum depth of deformation  $\leq$  7 mm with no signs of frost or sweating  $\rightarrow$ note without charge for damage (note in the expert report).
- Depth of deformation  $> 7 \text{ mm} \rightarrow$  charge for tank replacement.

Dents on the rear head or on the protective shroud  $\rightarrow$  charge for tank replacement.

Surfaces scratches in outer shell  $\rightarrow$  note without charge for damage.

Any visual ice or frost spot on the outer shell or heads (excluding knuckle and its mounted plumbing)  $\rightarrow$  charge for tank replacement.

Dents, cracks, splits or visible leaks at the weld seams or on welded components -> charge for tank replacement.

Any cracks, splits or visible leaks on the outer shell, rear head or protective shroud  $\rightarrow$  charge for tank replacement.

Damage to the fill receptacle or VENT value  $\rightarrow$  charge for replacement of components.

Inspect the pump-out port or cap for signs of damage or tampering. Half round cap must be intact and secured to the tank. If not present  $\rightarrow$  charge for tank replacement.



# **RETAINER BRACKETS AND BANDS FOR LNG TANK**





LNG tank must be returned in proper conditions as illustrated in picture.

Check that the brackets and the bands are present and properly thighten.





Rust, dents, breakages and/or gouges  $\rightarrow$  charge for replacement of brackets and bands.



# **RIGID LINES FOR LNG TANK**





LNG tank must be returned in proper conditions as illustrated in picture.





Rust, dents, breakages and/or gouges  $\rightarrow$  charge for replacement of rigid lines.



#### **RELIEF VALVES**



6. Primary relief valve (connected to the venting line)7. Secondary relief valve (with red cap)







**Important note:** The maintenance plan calls for the mandatory replacement of the primary and secondary relief valves of any LNG tank by the fifth year after manufacture; in case the vehicle is returned after 5 years or more from the contract start date, the customer must ensure that the primary and secondary relief valves has been replaced before returning the vehicle to IVECO.

Inspect for presence of the red cap on the secondary relief value  $\rightarrow$  charge for replacement of the primary relief value.



#### **CNG CYLINDERS**







CNG cylinders must be returned in proper conditions as illustrated in pictures.





Evidence of repairs to the CNG cylinder  $\rightarrow$  charge for replacement for CNG cylinder.

Holes in the CNG cylinder  $\rightarrow$  charge for replacement for CNG cylinder.

Dents on the CNG cylinder:

If no metal is detached and the maximum depth of the deformation is  $\leq 1.6$  mm and  $\leq 50$  mm in diameter/length  $\rightarrow$  note without charge for damage. Detachment of metal or maximum depth of deformation > 1.6 mm and > 50 mm in diameter/length  $\rightarrow$  charge for replacement of CNG cylinder.

Cuts/scratches/gouges/abrasions on the CNG cylinder: Depth of damage <= 0.25 mm  $\rightarrow$  note without charge for damage. Depth of damage > 0.25 mm  $\rightarrow$  charge for replacement of CNG cylinder.

Corrosion, pits, corrosion lines caused by a chemical, oxidation or rusting of material: Depth of damage  $\leq 0.25 \text{ mm} \rightarrow$  note without charge for damage. Depth of damage  $\geq 0.25 \text{ mm} \rightarrow$  charge for replacement of CNG cylinder.

Gas leakage from any CNG cylinder or component, due to a defect  $\rightarrow$  charge for replacement of the CNG cylinder or component.

Bulge/visible swelling of the CNG cylinder  $\rightarrow$  charge for replacement of the CNG cylinder.

Permanent traces of chemical attack/permanent discolouration, loss of material from the CNG cylinder  $\rightarrow$  charge for replacement of the CNG cylinder.

Permanent traces of charring/soot/blackening/discolouration, evidence of fire or excessive heat exposure of an area of the CNG cylinder  $\rightarrow$  replacement of the CNG cylinder.

**Notes:** Stralis NP is manufactured only with steel CNG-1 cylinder.





#### **CNG CYLINDERS PROTECTIVE COVER**





CNG cylinders must be returned in proper conditions as illustrated in pictures.

Dents, deformations, rust and/or gouges that do not affect functionality and safety are accepted.







Visible dents and deformations that affect the functionality and/or safety  $\rightarrow$  charge for replacement of protective covers.

Rust, breakages and/or gouges that affect the functionality and/or safety → charge for replacement of protective covers.

Where the covers are absent  $\rightarrow$  charge for the replacement of these.





#### **RETAINER BRACKETS AND BANDS FOR CNG** CYLINDERS





CNG cylinders must be returned in proper conditions as illustrated in picture.

Check that the brackets are present and properly thighten.



Rust, dents, breakages and/or gouges  $\rightarrow$  charge for replacement of brackets and bands.



# **RIGID LINES FOR CNG CYLINDERS**





CNG cylinders must be returned in proper conditions as illustrated in picture.



Rust, dents, breakages and/or gouges  $\rightarrow$  charge for replacement of rigid lines.



# **CNG FILL RECEPTACLE PROTECTION BOX**







Rust on the fill receptacle protection box  $\rightarrow$  note without charge for damage.





Missing protection box key, damaged CNG receptacle or pressure gauge  $\rightarrow$  charge for replacement of the full box.

# **INSPECTION OF ADDITIONAL HEATER TANK**





Additional heater tank must be returned in proper conditions as illustrated in picture.





Missing additional heater tank key → charge for replacement of key.
Breakages on the additional heater tank → charge for replacement of the additional tank.
Level indicator shows water → charge for replacement of the additional heater tank.





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