

AP-3.1 Whitelist – HGV and HGC

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DOCUMENT STATUS

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REVISION HISTORY

Version	Date	Author	Main Changes
1.0	11 March 2022	NPRA	New document/version
2.0	1 July 2022	NPRA	Format version 500001 added
3.0	4 March 2025	NPRA	Added new fuel type codes 21 and 22. Updated Tables 1 and 2. Several minor clarifications.

TABLE OF CONTENTS

1	PRE	FACE	4
	1.1	Description	4
	1.1.1		
	1.1.2 1.2		
	1.2.1 1.2.2		
	1.3		
	1.3.1	1 Common definitions	6
	1.3.2		-
	1.3.3		
	1.4	Data Formats	
	1.4.1 1.4.2		
	1.5	Data Quality and Validation	
2	WНI	IITELIST FORMATS	
	2.1	HGV – Versions 120001/220001	
	2.1.1		
	2.1.2	2 Body	
	2.1.3		
	2.2	HGV – Version 500001	
	2.2.1	1 File Header	11
		1 File Header 2 Body	11
3	2.2.1 2.2.2 2.2.3	1 File Header 2 Body	
3	2.2.1 2.2.2 2.2.3	 File Header Body File Footer 	
3	2.2.1 2.2.2 2.2.3 HGC	 File Header	
3	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2	 File Header	11 11 13 14 14 14 14 15
3	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3	 File Header	11 11 13 14 14 14 14 14 15 15
3	2.2.1 2.2.2 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2	 File Header	11 11 13 14 14 14 14 14 15 15 15 16
3	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3	 File Header	11 11 13 14 14 14 14 14 15 15 15 16 16
3	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2 3.2.1	 File Header	11 11 13 14 14 14 14 15 15 16 16 17
3	2.2.1 2.2.2 HGC 3.1 3.1.1 3.1.2 3.2 3.2 3.2.1 3.2.2	1 File Header	11 11 13 14 14 14 14 15 15 15 16 16 16 17 17 17 18
_	2.2.1 2.2.2 HGC 3.1 3.1.1 3.1.2 3.2 3.2 3.2.1 3.2.2	 File Header	11 11 13 14 14 14 14 15 15 15 16 16 16 17 17 17 18
_	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.2.3 TAB	1 File Header	11 11 13 14 14 14 14 15 15 16 16 16 17 17 17 18 18
_	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.2.3 TAB 4.1	 File Header	11 11 13 14 14 14 14 14 14 15 15 16 16 16 17 17 17 18 18 19
_	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.2.3 TAB 4.1 4.2	 File Header	11 11 13 14 14 14 14 14 15 15 16 16 16 16 17 17 17 18 18 18 19 20
_	2.2.1 2.2.2 2.2.3 HGC 3.1 3.1.1 3.1.2 3.1.3 3.2 3.2.1 3.2.2 3.2.3 TAB 4.1 4.2 4.3	 File Header	11 11 13 14 14 14 14 14 15 15 16 16 16 16 17 17 17 18 18 18 19 20 21

1 PREFACE

The whitelist formats include two separate file types, the HGV whitelist and the HGC confirmation file. The formal requirements for both of them are given here, whereas the format definitions are to be found separately in the following chapters.

The filename HGV comes from the legacy format for Heavy Goods Vehicles. However, the HGV file is today used for all vehicles, including light vehicles. It is therefore to be considered as a general whitelist.

1.1 Description

1.1.1 HGV

The HGV list has the following purposes:

- Maintain the OBE register in AutoPASS IP for all vehicles (light and heavy)
- Identify the OBE based on the licence plate in the HGV list when the OBE has not been read at the charging point (this will enable the TC to charge the user via the OBE instead of via the licence plate)

Important note:

Nearly all vehicles with a maximum allowed weight of more than 3500kg must be registered with an OBE and have mounted the OBE correctly to avoid being charged a penalty according to the Norwegian requirement for mandatory OBE.

1.1.2 HGC

Each time the AutoPASS HUB receives a new HGV file from a TSP, the file is checked to ensure that the general content is according to the specifications. If the AutoPASS HUB detects any general formatting errors, an alarm is sent to the TSP. This will lead to a total rejection of the HGV file, and no HGC file will be produced. The HGV file in question will be placed in the TSPs rejected catalogue on AutoPASS HUB, and an alarm will be sent describing the failure.

A confirmation file (HGC) is produced and sent back to the TSP when the file is accepted or partially accepted by AutoPASS IP. In case of partial acceptance, the HGC file lists the rejected line(s) and states the reason for the rejection(s). When confirming a completely accepted HGV file, the HGC file will only contain the header and footer. There will be no body lines in the file.

1.2 Format Versions

1.2.1 HGV

There are three current versions of the HGV format:

- 120001 Identical to EasyGo format version 120001. To be used for complete or incremental TSP whitelists.
- 220001 Identical to 120001. Only to be used for incremental whitelists. New agreements are included once. Terminated agreements are removed by use of the "Valid to" field.
- 500001 Includes better functionality for OBE replacement. This is the preferred format for incremental whitelists. May also be used for complete TSP whitelists.

Format versions 120001 and 220001 are maintained for compatibility. It is encouraged to migrate to format version 500001.

1.2.2 HGC

There are two current versions of the HGC format:

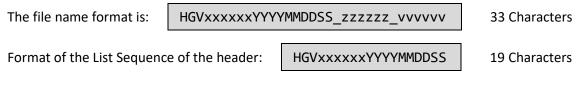
- 120001 Used with HGV 120001 and HGV 220001
- 500001 Updated format to match HGV 500001

1.3 File Name Generation

1.3.1 Common definitions

- YYYYY Year (4 characters) of the generation of the file
- MM Month (2 characters) of the generation of the file
- DD Date (2 characters) of the generation of the file
- SS Sequence within the day (sequential number of 2 characters, incrementing separately for each file per each sender/receiver combination per day, beginning with 01. Max. value 99. There is no restart from 01 during the same day.)
- zzzzzz Identifier of the receiver of the file (6 characters)
- vvvvvv Format Version. Shall be the same as used in the corresponding HGV.

1.3.2 HGV



• xxxxxx – Identifier of the sender of the "local" HGV list, originated by a TSP (6 characters).

1.3.3 HGC



• xxxxxx – Identifier of the sender of the HGC register confirmation (6 characters), that means the id of AutoPASS IP (000002)

1.4 Data Formats

1.4.1 Character Set

- The ISO 8859-1 (Latin Alphabet No1) character set is to be used.
- Non Latin-1 characters in Licence Plate Numbers shall be coded as lower case letters, applying a translation table according to ISO14906, Annex D. This table is shown in <u>Table 6</u>.
- Only a line feed is used at the end of each line.

1.4.2 Time Stamp Format

All time stamps in the <u>file body</u> shall be given in UTC. Time stamps in the <u>file name</u> (date only) and <u>header</u> are in local time adjusted for daylight saving time. The time zone of the sender shall be used.

The format of the time stamp is: YYYYMMDDhhmmss, where:

- YYYY Year
- MM Month (01-12)
- DD Day (01-31)
- hh Hour (00-23)
- mm Minute (00-59)
- ss Second (00-59)

1.5 Data Quality and Validation

For passages to be charged correctly, it is essential that every HGV entry is <u>accurate</u> and <u>complete</u>. This means that:

- Data must be given for all mandatory fields.
- Only verified information regarding vehicles is allowed.
- Each registration number shall be connected to only one OBE from the same TSP at any one time. The use of "PAN Replaced" is exempted.
- M1 vehicles with a maximum weight of more than 3500kg must be declared with Tariff Classification value "32". Failure to do so will result in passages being charged the rate for heavy vehicles. The driver may in this case also be given a penalty by the NPRA roadside vehicle inspection patrols.
- LUHN check shall be performed on the PAN before inclusion in the HGV-file
- Only unique PAN may be presented multiple entries of the same PAN are not allowed

2 WHITELIST FORMATS

2.1 HGV – Versions 120001/220001

2.1.1 File Header

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	DefaultA	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"0" = Header	Generation	Right	Mandatory	n/a	n/a
Sender Identifier	6	AlphaN	2	7	6 digit identifier of the Company having created this file.	Generation	Left	Mandatory	n/a	n/a
Receiver Identifier	6	AlphaN	8	13	6 digit identifier of the Company intended as receiver of this file.	Generation	Left	Mandatory	n/a	n/a
List Sequence	19	AlphaN	14	32	HGVxxxxxYYYYMMDDSS	Generation	Left	Mandatory	n/a	n/a
Previous File Sequence	19	AlphaN	33	51	HGVxxxxxxYYYYMMDDSS (HGV0000000000000000 if first)	Generation	Left	Mandatory	n/a	n/a
Moment of activation	14	Numeric	52	65	It is not possible to state a future moment of activation. As it is only possible to use immediate activation, this field must be filled with zeros.	Generation	Right	Mandatory	n/a	n/a
Number of records	15	Numeric	66	80	Number of records (lines) in the Body	Generation	Right	Mandatory	n/a	Zeros
Moment of creation	14	Numeric	81	94	YYYYMMDDhhmmss	Generation	Right	Mandatory	n/a	n/a
List format version	6	AlphaN	95	100	"120001" or "220001", according to the format in use	Generation	Left	Mandatory	n/a	n/a
Filler	27	AlphaN	101	127	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	n/a
End of header	1	AlphaN	128	128	Line feed only	Generation	Left	Mandatory	n/a	n/a

2.1.2 Body

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"1" = Body	Generation	Right	Mandatory	n/a	n/a
Actor ID – TSP	6	AlphaN	2	7	6 digits identifier of the Company having issued this OBE according to ISO 14816	TSP	Left	Mandatory	n/a	n/a
Shadow TSP	6	AlphaN	8	13	Not in use.	TSP	Left	n/a	Blanks	Blanks
Personal Account Number	19	AlphaN	14	32	PAN of the OBE. Shall be unique.	TSP	Left	Mandatory	n/a	Blanks
Licence Plate Number	10	AlphaN	33	42	Licence Plate Number of the vehicle. Only capital letters are to be used. Spaces or other separators like hyphens are not allowed in between regular characters. Allowed Characters are specified in <u>Table 5</u> and <u>Table 6</u> .	TSP	Left	Mandatory	n/a	Blanks
Licence Plate Nationality	3	AlphaN	43	45	Nationality of Licence Plate Number according to ISO 3166-1-Alpha-2 code elements (DK = Denmark, NO = Norway, AT = Austria, SE = Sweden etc) http://www.iso.org/iso/english_country_names_and_code_elements	TSP	Left	Mandatory	n/a	Blanks
Tariff Classification	2	AlphaN	46	47	Specific vehicle class applied for tariff calculation. For valid values see <u>Table 1</u> .	TSP	Left	Mandatory	n/a	n/a
VehicleClass	1	Numeric	48	48	As personalized in the OBE	TSP	Right	Optional	Zero	Zero
Number of axels	1	Numeric	49	49	Personalized number of axels of the tractor unit as in the OBE	TSP	Right	Optional	Zero	Zero

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Context mark	12	AlphaN	50	61	ContractProvider + TypeOfContract + ContextVersion according to ISO 14906. 3+2+1 bytes represented as 6+4+2 in Hex. E.g. "30C00B" + "0005" + "03" = "30C00B000503"	TSP	Left	Mandatory	n/a	n/a
OBE ID	18	AlphaN	62	79	ContractProvider + ManufacturerId + EquipmentOBUId according to ISO 14906. 3+2+4 bytes represented as 6+4+8 in Hex e.g. "30C00B" + "0012" + "22070321" = "30C00B001222070321". EquipmentOBUId: The value of attribute ID 24 from the application element of the OBE.	TSP	Left	Mandatory	n/a	n/a
Emission class	6	AlphaN	80	85	EU Emission class (Euro 6 etc.). Zero emission vehicles are defined under TSP Product Code. The TSP is obligated to state only verified emission classes for vehicles in the HGV list. See <u>Table 2</u> .	TSP	Left	Mandatory	n/a	Blanks
TSP product code	6	AlphaN	86	91	The first two characters indicate the Fuel Type. See the "Fuel Type" column in <u>Table 4</u> . Character 3 (Y/N) indicates if the vehicle is a chargeable hybrid. Y=Yes, N=No or unknown. Characters 4-6 = Blanks.	TSP	Left	Mandatory	n/a	Blanks
Engine Characteristics	3	Numeric	92	94	Personalized Engine Characteristics (according to ISO 17573-3). The TSP is obligated to state only verified engine types for vehicles in the HGV list. See the "Engine Characteristics" column in <u>Table 4</u> .	TSP	Left	Optional	Zeros ¹	Zeros
CO2 (CopValue)	2	Numeric	95	96	Personalized carbon dioxide pollution values (according to ISO 17573-3). The TSP is obligated to state only verified CO2 values in the HGV list.	TSP	Left	Optional	Zeros ¹	Zeros
VehicleMaxLadenWeight	4	Numeric	97	100	Maximum permissible total weight including payload, according to ISO 1176. 10 kg units, rounded down to the next 10 kg step. For example: 349 = 3491 - 3500 kg, 350 = 3501 - 3510 kg, 351 = 3511 - 3520 kg etc.	TSP	Right	Optional	Zeros ¹	Zeros
Valid to	14	Numeric	101	114	YYYYMMDDhhmmss UTC. Used to inactivate an OBE. AutoPASS IP will inactivate the OBE at the time of reception of the HGV, alternatively at the time of the time stamp, should it be set for a future date. Note: This is not the ExpiryDate personalized in the OBE.	TSP	Right	Optional	Zeros ¹	Zeros
LPNseparator	2	Numeric	115	116	Used if a separator, typically a hyphen, is a part of a Licence plate number. Blank spaces are not regarded as separators. The position(s) of the separator(s) shall be given counted from the left. The value for licence plates without a separator is "00". Examples: Licence plate number "AB-C123" gives the value "30". LPN "AB-C123-B" gives the value "38".	TSP	Right	Mandatory	Zeros	Zeros
Filler	11	AlphaN	117	127	Reserved for future use, filled with Zeros.	TSP	Right	Mandatory	n/a	n/a
End of Record	1	AlphaN	128	128	Line feed only	Generation	Left	Mandatory	n/a	n/a

1) AutoPASS IP Validates the content of these fields to only contain Zeros if data is not included. These fields are therefore an exception to the general rule for blanks representing no value.

2.1.3 File Footer

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Δdiustod	Mandatory or Optional		Padding
Register Identifier	1	Numeric	1	1	"2" = Footer	Generation	Right	Mandatory	n/a	n/a
Filler	62	AlphaN	2	63	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	n/a
End of Footer	1	AlphaN	64	64	Line feed only	Generation	Left	Mandatory	n/a	n/a

2.2 HGV – Version 500001

2.2.1 File Header

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional		Padding
Register Identifier	1	Numeric	1	1	"0" = Header	Generation	Right	Mandatory	n/a	n/a
Sender Identifier	6	AlphaN	2	7	6 digit identifier of the Company having created this file.	Generation	Left	Mandatory	n/a	n/a
Receiver Identifier	6	AlphaN	8	13	6 digit identifier of the Company intended as receiver of this file.	Generation	Left	Mandatory	n/a	n/a
List Sequence	19	AlphaN	14	32	HGVxxxxxYYYYMMDDSS	Generation	Left	Mandatory	n/a	n/a
Previous File Sequence	19	AlphaN	33	51	HGVxxxxxXYYYYMMDDSS (HGV000000000000000000000000000000000000	Generation	Left	Mandatory	n/a	n/a
Moment of activation	14	Numeric	52	65	It is not possible to state a future moment of activation. As it is only possible to use immediate activation, this field must be filled with zeros.	Generation	n/a	Mandatory	n/a	n/a
Number of records	15	Numeric	66	80	Number of records (lines) in the Body	Generation	Right	Mandatory	n/a	Zeros
Moment of creation	14	Numeric	81	94	YYYYMMDDhhmmss	Generation	Right	Mandatory	n/a	n/a
List format version	6	AlphaN	95	100	"500001"	Generation	Left	Mandatory	n/a	n/a
Filler	27	AlphaN	101	127	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	Zeros
End of header	1	AlphaN	128	128	Line feed only	Generation	Left	Mandatory	n/a	n/a

2.2.2 Body

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"1" = Body	Generation	Right	Mandatory	n/a	n/a
Actor ID – TSP	6	AlphaN	2	7	6 digits identifier of the Company having issued this OBE according to ISO 14816	TSP	Left	Mandatory	n/a	n/a
Shadow TSP	6	AlphaN	8	13	Not in use.	TSP	Left	n/a	Blanks	Blanks
Personal Account Number	19	AlphaN	14	32	PAN Number. Shall be unique.	TSP	Left	Mandatory	n/a	Blanks
Licence Plate number	10	AlphaN	33	42	Licence Plate Number of the vehicle. Only capital letters are to be used. Spaces or other separators like hyphens are not allowed in between regular characters. Allowed Characters are specified in <u>Table 5</u> and <u>Table 6</u> .	TSP	Left	Mandatory	n/a	Blanks
Licence Plate nationality	3	AlphaN	43	45	Nationality of Licence Plate number according to ISO 3166-1-Alpha-2 code elements (DK = Denmark, NO = Norway, AT = Austria, SE = Sweden etc) http://www.iso.org/iso/english_country_names_and_code_elements_	TSP	Left	Mandatory	n/a	Blanks
Tariff Classification	2	AlphaN	46	47	Specific vehicle class applied for tariff calculation. For valid values see <u>Table 1</u> .	TSP	Left	Mandatory	n/a	n/a
VehicleClass	1	Numeric	48	48	As personalized in the OBE. Not in use in AutoPASS.	TSP	Right	Optional	Zero	Zero
Number of axels	1	Numeric	49	49	Personalized number of axels of the tractor unit as in the OBE. Not in use in AutoPASS.	TSP	Right	Optional	Zero	Zero
Context mark	12	AlphaN	50	61	ContractProvider + TypeOfContract + ContextVersion according to ISO 14906. 3+2+1 bytes represented as 6+4+2 in Hex. E.g. "30C00B" + "0005" + "03" = "30C00B000503"	TSP	Left	Mandatory	n/a	n/a

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
OBE ID	18	AlphaN	62	79	ContractProvider + ManufacturerId + EquipmentOBUId according to ISO 14906. 3+2+4 bytes represented as 6+4+8 in Hex e.g. "30C00B" + "0012" + "22070321" = "30C00B001222070321". EquipmentOBUId: The value of attribute ID 24 from the application element of the OBE.	TSP	Left	Mandatory	n/a	n/a
Emission class	6	AlphaN	80	85	EU Emission class (Euro 6 etc.). Zero emission vehicles are defined under TSP Product Code. The TSP is obligated to state only verified emission classes for vehicles in the HGV list. See <u>Table 2</u> .	TSP	Left	Mandatory	n/a	Blanks
TSP product code	6	AlphaN	86	91	The first two characters indicate the Fuel Type. See the "Fuel Type" column in <u>Table 4</u> Character 3 (Y/N) indicates if the vehicle is a chargeable hybrid. Y=Yes, N=No or unknown. Characters 4-6 = Blanks.	TSP	Left	Mandatory	n/a	Blanks
Engine Characteristics	3	Numeric	92	94	Personalized Engine Characteristics (according to ISO 17573-3). The TSP is obligated to state only verified engine types for vehicles in the HGV list. See the "Engine Characteristics" column in <u>Table 4</u> . Not in use in AutoPASS.	TSP	Left	Optional	Zeros ¹	Zeros
CO2 (CopValue)	2	Numeric	95	96	Personalized carbon dioxide pollution values (according to ISO 17573-3). The TSP is obligated to state only verified CO2 values in the HGV list. Not in use in AutoPASS.	TSP	Left	Optional	Zeros ¹	Zeros
VehicleMaxLadenWeight	4	Numeric	97	100	Maximum permissible total weight including payload, according to ISO 1176. 10 kg units, rounded down to the next 10 kg step. For example: 349 = 3491 - 3500 kg, 350 = 3501 - 3510 kg, 351 = 3511 - 3520 kg etc. Not in use in AutoPASS.	TSP	Right	Optional	Zeros ¹	Zeros
Valid to	14	Numeric	101	114	YYYYMMDDhhmmss UTC. Used to inactivate an OBE. AutoPASS IP will inactivate the OBE at the time of reception of the HGV, alternatively at the time of the time stamp, should it be set for a future date. Note: This is not the ExpiryDate personalized in the OBE.	TSP	Right	Optional	Zeros ¹	Zeros
LPNseparator	2	Numeric	115	116	Used if a separator, typically a hyphen, is a part of a Licence plate number. Blank spaces are not regarded as separators. The position(s) of the separator(s) shall be given counted from the left. The value for licence plates without a separator is "00". Examples: Licence plate number "AB-C123" gives the value "30". LPN "AB-C123-B" gives the value "38".	TSP	Right	Mandatory	Zeros	Zeros
Filler	11	AlphaN	117	127	Reserved for future use, filled with Zeros.	TSP	Right	Mandatory	n/a	Zeros
PAN Replaced	19	AlphaN	128	146	ID of old PAN to be replaced. The new PAN must be given in pos. 14 - 32. The TSP is only allowed to replace their own PANs.	TSP	Right	Optional	Zeros	Zeros
End of Record	1	AlphaN	147	147	Line feed only	Generation	Left	Mandatory	n/a	n/a

1) AutoPASS IP Validates the content of these fields to only contain Zeros if data is not included. These fields are therefore an exception to the general rule for blanks representing no value.

2.2.3 File Footer

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	hatsubA I	Mandatory or Optional		Padding
Register Identifier	1	Numeric	1	1	"2" = Footer	Generation	Right	Mandatory	n/a	n/a
Filler	62	AlphaN	2	63	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	Zeros
End of Footer	1	AlphaN	64	64	Line feed only	Generation	Left	Mandatory	n/a	n/a

3 HGC - WHITELIST CONFIRMATION (HGV CONFIRMATION) FILE

3.1 HGC File Format – Version 120001

3.1.1 File Header

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"0"=Header	Generation	Right	Mandatory	n/a	n/a
Sender Identifier	6	AlphaN	2	7	Always "000002" (AutoPASS IP)	Generation	Left	Mandatory	n/a	Blanks
Receiver Identifier	6	AlphaN	8	13	6 digits identifier of the Company intended as receiver of this file.	Generation	Left	Mandatory	n/a	Blanks
List Received	19	AlphaN	14	32	The HGV file that this HGC is a response to. Format: HGVxxxxxxYYYYMMDDSS	Generation	Left	Mandatory	n/a	Blanks
Date of reception	14	Numeric	33	46	YYYYMMDDhhmmss Timestamp of when the file "List Received" was processed.	Receiver	Right	Mandatory	n/a	Zeros
Number of records Accepted	15	Numeric	47	61		Receiver	Right	Mandatory	n/a	Zeros
Number of records Rejected	15	Numeric	62	76		Receiver	Right	Mandatory	n/a	Zeros
List format version	6	AlphaN	77	82	"120001"	Generation	Left	Mandatory	n/a	Zeros
Filler	25	AlphaN	83	107	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	Zeros
File acceptance	2	AlphaN	108	109	Code for acceptance or rejection of received HGV list: "00": Full acceptance (all records OK) "01": Partial acceptance. Also to be used when all lines are rejected.	Generation	Left	Mandatory	n/a	Zeros
End of header	1	AlphaN	110	110	Line feed only		Left	Mandatory	n/a	n/a

3.1.2 Body

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"1"=Body		Right	Mandatory for Rejections	n/a	n/a
Copy of HGV body line	126	AlphaN	2	127	For each rejected body line, the data from the HGV list is copied and inserted into this position. That is, all the actual data of the HGV body line, not including the first character (Register Identifier) or the last character (End of Record). There will be one line in the HGC for each rejected line of the HGV.		Left	Mandatory for Rejections	n/a	n/a
Reason of rejection of line	2	Numeric	128	129	Code of rejection: "01": Duplicate entry" "02": PAN number not valid (Luhn code) "03": Number of digits in PAN is not correct "04": PAN number or context mark is not within the TSPs range "05": OBE is not valid "06": n/a "07": n/a "08": Context mark missing or wrong "09": Licence plate number or licence plate nationality missing or wrong "10": n/a "11": Emission class missing or wrong "12": Miscellaneous	AutoPASS IP	Right	Mandatory for Rejections	n/a	n/a
End of Record	1	AlphaN	130	130	Line feed only		Left	Mandatory for Rejections	n/a	n/a

3.1.3 File Footer

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjuctod	Mandatory or Optional		Padding
Register Identifier	1	Numeric	1	1	"2"=Footer		Right	Mandatory	n/a	n/a
Filler	62	AlphaN	2	63	Reserved for future use, filled with Zeros		Left	Mandatory	n/a	Zeros
End of Footer	1	AlphaN	64	64	Line feed only		Left	Mandatory	n/a	n/a

3.2 HGC File Format – Version 500001

3.2.1 File Header

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"0"=Header	Generation	Right	Mandatory	n/a	n/a
Sender Identifier	6	AlphaN	2	7	Always "000002" (AutoPASS IP)	Generation	Left	Mandatory	n/a	Blanks
Receiver Identifier	6	AlphaN	8	13	6 digits identifier of the Company intended as receiver of this file.	Generation	Left	Mandatory	n/a	Blanks
List Received	19	AlphaN	14	32	The HGV file that this HGC is a response to. Format: HGVxxxxxxYYYYMMDDSS	Generation	Left	Mandatory	n/a	Blanks
Date of reception	14	Numeric	33	46	YYYYMMDDhhmmss Timestamp of when the file "List Received" was received.	Receiver	Right	Mandatory	n/a	Zeros
Number of records Accepted	15	Numeric	47	61		Receiver	Right	Mandatory	n/a	Zeros
Number of records Rejected	15	Numeric	62	76		Receiver	Right	Mandatory	n/a	Zeros
List format version	6	AlphaN	77	82	"500001"	Generation	Left	Mandatory	n/a	Zeros
Filler	25	AlphaN	83	107	Reserved for future use, filled with Zeros	Generation	Left	Mandatory	n/a	Zeros
File acceptance	2	AlphaN	108	109	Code for acceptance or rejection of received HGV list: "00": Full acceptance (all records OK) "01": Partial acceptance. Also to be used when all lines are rejected.	Generation	Left	Mandatory	n/a	Zeros
End of header	1	AlphaN	110	110	Line feed only		Left	Mandatory	n/a	n/a

3.2.2 Body

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjusted	Mandatory or Optional	Value if Nothing	Padding
Register Identifier	1	Numeric	1	1	"1"=Body		Right	Mandatory for Rejections	n/a	n/a
Copy of HGV body line	126	AlphaN	2	146	For each rejected body line, the data from the HGV list is copied and inserted into this position. That is, all the actual data of the HGV body line, not including the first character (Register Identifier) or the last character (End of Record). There will be one line in the HGC for each rejected line of the HGV.		Left	Mandatory for Rejections	n/a	n/a
Reason of rejection of line	2	Numeric	147	148	Code of rejection: "01": Duplicate entry "02": PAN number not valid (Luhn code) "03": Number of digits in PAN is not correct "04": PAN number or context mark is not within the TSPs range "05": OBE is not valid "06": n/a "07": n/a "08": Context mark missing or wrong "09": Licence plate number or licence plate nationality missing or wrong "10": n/a "11": Emission class missing or wrong "12": Miscellaneous	AutoPASS IP	Right	Mandatory for Rejections	n/a	n/a
End of Record	1	AlphaN	149	149	Line feed only		Left	Mandatory for Rejections	n/a	n/a

3.2.3 File Footer

Name	Number of Char.	Type of value	Begin	End	Definition	Origin	Adjuctod	Mandatory or Optional		Padding
Register Identifier	1	Numeric	1	1	"2"=Footer		Right	Mandatory	n/a	n/a
Filler	62	AlphaN	2	63	Reserved for future use, filled with Zeros		Left	Mandatory	n/a	Zeros
End of Footer	1	AlphaN	64	64	Line feed only		Left	Mandatory	n/a	n/a

4 TABLES

4.1 Tariff Classification Values

	Tariff Classification in HGV/TIF		EN15509 European Vehicle Group				
12	Passenger Vehicle in below or equal to 3500kg	1	Group 1 - Small Passenger Vehicle (UNECE class M1)				
22	Light Goods Vehicle below or equal to 3500kg (UNECE class N1)	2	Group 2 - Light Goods Vehicle (UNECE class N1)				
31	Vehicle above 3500kg, seat count excluding driver is greater than 8 (UNECE class M2 and M3)	3	Group 3 - Large Passenger Vehicle. (UNECE class M2, M3)				
32	Vehicle in UNECE class M1 above 3500kg		Group 3 - Vehicle in UNECE class M1 above 3500kg				
41	Heavy Goods Vehicle above 3500kg and below or equal to 12000kg (UNECE class N2)	4	Group 4 - Heavy Goods Vehicle up to 12000kg (UNECE class N2)				
51	Heavy Goods Vehicle above 12000kg (UNECE class N3)	5	Group 5 - Heavy Goods Vehicle over 12000kg (UNECE class N3)				
63	Motorcycle (UNECE class L)	6	Group 6 - Motorcycle (UNECE class L)				
71	Other Vehicle	7	Group 7 - Other vehicles including vehicles above 3500kg not included in previous groups				

Table 1 – HGV/TIF Values for "Tariff Classification"

4.2 Euro Emission Classes

Table 2 - HGV Values for "Emission Class"

Euro emission Classes	Entry in HGV
Zero emission	0
Unknown *	0
Vehicle pre Euro classification	0
Euro 1 / Euro I	Euro1
Euro 2 / Euro II	Euro2
Euro 3 / Euro III	Euro3
Euro 4 / Euro IV	Euro4
Euro 5 / Euro V	Euro5
EEV	EEV
Euro6 / Euro VI	Euro6
Euro7 / Euro VII	Euro7

* "Unknown" is only to be used where here is no data recorded for the vehicle. Typically only relevant for historical vehicles.

Vehicles without Internal Combustions Engines, typically zero emission vehicles, must be entered as Euro Emission Class "0".

4.3 Fuel Type Codes

The fuel type codes in <u>Table 3</u> as defined by Autosys, the Norwegian national vehicle register. Other Fuel Type Codes than the ones listed are not to be used.

Table 3 - Accepted Fuel Type Codes

Fuel Type Code	Description
01	Petrol
02	Diesel
03	Paraffin
04	Gas
05	Electric
06	Hydrogen
09	Other fuels
10	Bio petrol
11	Biodiesel
12	LPG-gas
13	CNG-gas
14	Methanol
15	Ethanol
20	Compressed air
21	LNG
22	CNG and LNG

4.4 Mapping of Fuel Type Codes

-	vpe in TSP Product Code, characters 86-87.	Engine Characteristics According to ISO 17573-3	
Fuel Type	Description	Description	Engine Characteristics
00* ⁾	No information	No Entry. *) This value is not allowed in the HGV file.	0
	n/a	No Engine	1
01	Gasoline	Petrol Unleaded	2
01	Gasoline	Petrol Leaded	3
02	Diesel	Diesel	4
04	Gas	LPG	5
05	Electric	Battery vehicle powered exclusively by battery	6
05	Electric	Solar	7
02	Diesel	Hybrid kept for legacy compatibility, more differentiated values are available	8
06	Hydrogen	Hydrogen	9
02	Diesel	multi-fuel Multi-fuel engine	10
01	Gasoline	bivalent-petrol-LPG bivalent operating engine with petrol or liquefied petroleum gas	11
01	Gasoline	bivalent-petrol-CNG bivalent operating engine with petrol or compressed natural gas	12
01	Gasoline	combined-petrol-electric combined operation with petrol and electric engine	13
13	CNG-Gas	CNG compressed natural gas	14
12	LPG-Gas	LNG liquefied natural gas	15
02	Diesel	combined-diesel-electric combined operation of diesel and electric engine	16
05	Electric	combined-hydrogen-electric combined operation of hydrogen and electric engine	17
01	Gasoline	bivalent-hydrogen-petrol bivalent operating engine with hydrogen or petrol	18
01	Gasoline	bivalent-hydrogen-petrol-electric-engine bivalent operating engine with hydrogen or petrol combined with electric engine	19

Table 4 – Mapping from "Engine Characteristics" to Norwegian "Fuel Types" for the HGV

Fuel Type in TSP Product Code, characters 86-87.		Engine Characteristics According to ISO 17573-3	
Fuel Type	Description	Description	Engine Characteristics
06	Hydrogen	fuel-cell-hydrogen fuel cell with hydrogen as primary energy source and electric engine	20
01	Gasoline	fuel-cell-petrol fuel cell with petrol as primary energy source and electric engine	21
14	Methanol	fuel-cell-methanol fuel cell with methanol as primary energy source and electric engine	22
15	Ethanol	fuel-cell-ethanol fuel cell with ethanol as primary energy source and electric engine	23
02	Diesel	fuel-cell-diesel fuel cell with diesel as primary energy source and electric engine	24
02	Diesel	combined-multi-fuel-electric-engine combined operation of multi fuel and electric engine	25
13	CNG-gas	combined-CNG-electric-engine combined operation with compressed natural gas and electric engine	26
12	LPG-gas	combined-LNG-electric-engine combined operation with liquefied natural gas and electric engine	27
01	Gasoline	petrol-ethanol fuel mix of petrol and mainly ethanol, e.g. E85	28
12	LPG-gas	combined-LPG-electric-engine combined operation of LPG and electric engine	29
01	Gasoline	hybrid-petrol-external-battery hybrid drive with petrol and external chargeable battery (plug-in hybrid)	30
02	Diesel	hybrid-diesel-external-battery hybrid drive with diesel and external chargeable battery (plug-in hybrid)	31
12	LPG-gas	hybrid-LPG-external-battery hybrid drive with LPG and external chargeable battery (plug-in hybrid)	32
06	Hydrogen	hybrid-hydrogen-external-battery hybrid drive with hydrogen and external chargeable battery (plug-in hybrid)	33
02	Diesel	hybrid-multi-fuel-external-battery hybrid drive with multi fuel and external chargeable battery (plug-in hybrid)	34
13	CNG-gas	hybrid-CNG-external-battery hybrid drive with compressed natural gas and external chargeable battery (plug-in hybrid)	35
12	LPG-gas	hybrid-LNG-external-battery hybrid drive with liquified natural gas and external chargeable battery (plug-in hybrid)	36
01	Gasoline	hybrid-bivalent-hydrogen-petrol-external-battery hybrid drive with bivalent operating hydrogen and petrol engine and external chargeable battery (plug-in hybrid)	37
13	CNG-gas	hydrogen-CNG fuel mix of hydrogen and compressed natural gas	38

Fuel Type in TSP Product Code, characters 86-87.		Engine Characteristics According to ISO 17573-3	
Fuel Type	Description	Description	Engine Characteristics
12	LPG-gas	hydrogen-LNG fuel mix of hydrogen and liquified natural gas	39
13	CNG-gas	hybrid-hydrogen-CNG-external-battery hybrid drive with hydrogen and compressed natural gas and external chargeable battery (plug-in hybrid)	40
12	LPG-gas	hybrid-hydrogen-LNG-external-battery hybrid drive with hydrogen and liquified natural gas and external chargeable battery (plug-in hybrid)	41
15	Ethanol	ethanol ethanol or fuel mix of ethanol and other fuel (except petrol) or additives, e.g. E95	42
05	Electric	hybrid-fuel-cell-hydrogen hybrid drive with fuel cell (electric engine) and hydrogen (combustion engine)	43
05	Electric	hybrid-fuel-cell-hydrogen-external-battery hybrid drive with fuel cell (electric engine) and hydrogen (combustion engine) and external chargeable battery (plug-in hybrid)	44
02	Diesel	dual-fuel-LNG-diesel dual operation with LNG and diesel	45
05	Electric	electric-external electric engine with external power supply	46
04	Gas	biogas mixture of different gases produced by the breakdown of organic matter	47
10	Bio Diesel	bioDiesel vegetable oil- or animal fat-based diesel fuel	48
11	Bio Gasoline	bioPetrol petrol fully or partly based on vegetable sources	49
01	Gasoline	bivalent-petrol-biogas bivalent operating engine with petrol or biogas	50
05	Gas	combined-biogas-electric-engine combined operation of biogas and electric engine	51
02	Diesel	dual-fuel-cng-diesel dual operation with CNG and diesel	52
09	Other fuel (use as default if fuel type is unknown)	Other	255
03	Paraffin		

4.5 Valid Characters for Licence Plate Numbers

Only the highlighted characters in <u>Table 5</u> are valid characters for the Licence Plate Number. The lower case characters are only to be used for mapping of non-Latin 1 characters. See <u>Table 6</u>.

ISO/IEC 8859-1																
	x0	x1	x2	x3	x4	x5	x6	x7	x8	x9	хА	xВ	xC	xD	хE	xF
0x								Noti	n use							
1x								NOUT	nuse							
2x	SP	!	11	#	\$	%	&	I	()	*	+	,	-		/
Зx	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4x	@	А	В	С	D	Е	F	G	н	1	J	К	L	М	Ν	0
5x	Р	Q	R	S	Т	U	V	W	Х	Y	Z	[\]	Λ	_
6x	×	а	b	С	d	е	f	g	h	i	j	k	I.	m	n	0
7x	Р	q	r	S	t	u	v	w	х	у	z	{		}	~	
8x								Noti	n use							
9x								NOUT								
Ax	NBSP	i	¢	£	¤	¥	I	§		C	ā	«	~	SHY	®	-
Bx	0	±	2	3	,	μ	¶		د	1	Ō	>>	1⁄4	1/2	3/4	ż
Cx	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
Dx	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
Ex	à	á	â	ã	ä	å	æ	Ç	è	é	ê	ë	ì	í	î	ï
Fx	ð	ñ	ò	ó	ô	õ	ö	<u>.</u>	Ø	ù	ú	û	ü	ý	þ	ÿ

Table 5 - Valid Characters for "Licence Plate Number"

4.6 Allowed Non-Latin Characters for LPN

Licence Plate Character	Unicode Code Point	Mapped Latin1 Character
A to Z	U+0041to U+005A	not mapped
0 to 9	U+0030to U+0039	not mapped
Ä	U+00C4	not mapped
Ö	U+00D6	not mapped
Ü	U+00DC	not mapped
٨	U+039B	а
Ъ	U+042A	b
Č	U+010C	С
Д	U+0414	d
Ë	U+0401	е
Э	U+042D	f
Г	U+0413	g
Ь	U+042C	h
Ч	U+0427	i
Й	U+0419	j
3	U+0417	k
Л	U+041B	I
Щ	U+0429	m
И	U+0418	n
Ф	U+0424	0
П	U+041F	р
Ы	U+042B	q
Я	U+042F	r
Š	U+0160	S
Ю	U+042E	t
Ц	U+0426	u
Б	U+0411	v
Ш	U+0428	w
ж	U+0416	x
У	U+0423	у
Ž	U+017D	Z
Ð	U+00D0	ä
Ć	U+0106	ü

Table 6 - Allowed non-Latin1 characters and their mapping for "Licence Plate Number".

Non-Latin1 LPN characters in column 1 shall be represented in the HGV list by the matching character in column 3.