



WHAT IS A SHIPPING CONTAINER - THE COMPLETE GUIDE

INTRODUCTION

A container is a transportation equipment of value. Its life time may easily reach 15 years. Its use has made possible to rationalize transportation of goods with the result that their transfer from one means of transportation to another has been speeded up. For this reason and also for others such as fraud prevention, interchange control and rating, the identification of a container is of utmost importance at any stage of the distribution chain: delivery to shipper, delivery to carrier, delivery to consignee, contract of carriage, transfer from one carrier to another, customs formalities (export, transit, import), customs temporary admission, customs sealing, insurance, transport manifesting, claim settlement, maintenance and repair, loss, etc.

As there are several means of identifying containers and in order to avoid confusion from the great variety of markings, the Bureau International des Containers has grouped the available data into a single document, the BIC-Code. Originally dedicated to the publication of ISO alpha codes for container owners, the BIC-Code now comprises documentation related to:

- the Customs Convention on Containers,
- the Istanbul Convention,
- the International Convention for Safe Containers,
- the Customs Convention on international movement of goods under cover of TIR carnets,
- the International Organization for Standardization (ISO), which all provide or a specific marking as shown below,
- various other markings also result from National regulations, dangerous goods regulations and National Standard Institutes.

INTERNATIONAL CUSTOMS CONVENTIONS

Two major Conventions set forth the customs rules which regulates the circulation and use of ISO and non-ISO containers worldwide:

- the Customs Convention on Containers (1972) which deals with temporary admission and transport under customs seal,
- the Istanbul Convention (1993) which deals with temporary admission.

It must be noted that the Istanbul Convention supersedes the Customs Convention for Containers in the case where the two conventions have been ratified by a Contracting Party.

Customs Convention on Containers (CCC)

The Customs Convention on Containers (1972 – effective since 6 December 1975) grants, under certain conditions, temporary admission facilities to containers, loaded or not, which are due to be re-exported within three months from the date of importation. This period may be extended upon request.

Approval for transport under customs seal

Enforced in the Customs Convention on Containers, the agreement for transport under Customs seal is granted only to containers approved by the competent authority of the country of manufacture. The purpose of the approval is to certify that the container is constructed and equipped in such a manner that:

- a)** no goods can be removed from, or introduced into, its sealed part without leaving visible traces of tampering or without breaking the customs seal,
- b)** it contains no concealed spaces where goods could be hidden,
- c)** all spaces capable of holding good are readily accessible for customs inspection,
- d)** customs seals can be simply and effectively affixed to it.

Where the containers are manufactured by type series, the manufacturer may apply for approval by design type. In such case, he shall state in his application the identification numbers or letters which he assigns to the type of containers to which his application for approval relates to. It is recommended in such case to use the ISO type identification code.

Customs approval plate

The beneficiary of the approval shall affix the approval plate described hereafter to the approved container before its use for the transport of goods under customs seal. The plate shall be permanently affixed in a clearly visible place adjacent to any other approval plate issued for official purpose (see introduction). The Customs Convention

on Containers also stipulates in Annex 1 that the following data must be durably marked on containers:

- a) the identification of the owner or principal operator as per the ISO alpha code (ISO 6346)
- b) the identification number of the container given by the owner or operator,
- c) the tare weight of the container, including all permanently fixed equipment.



Istanbul Convention

The Convention on Temporary Admission (Istanbul, 26.6.1990) is intended to apply to the international transport of goods in containers and in other transport units such as road vehicles, railway wagons, inland waterways vessels, barges, etc. and permits to avoid, under certain conditions:

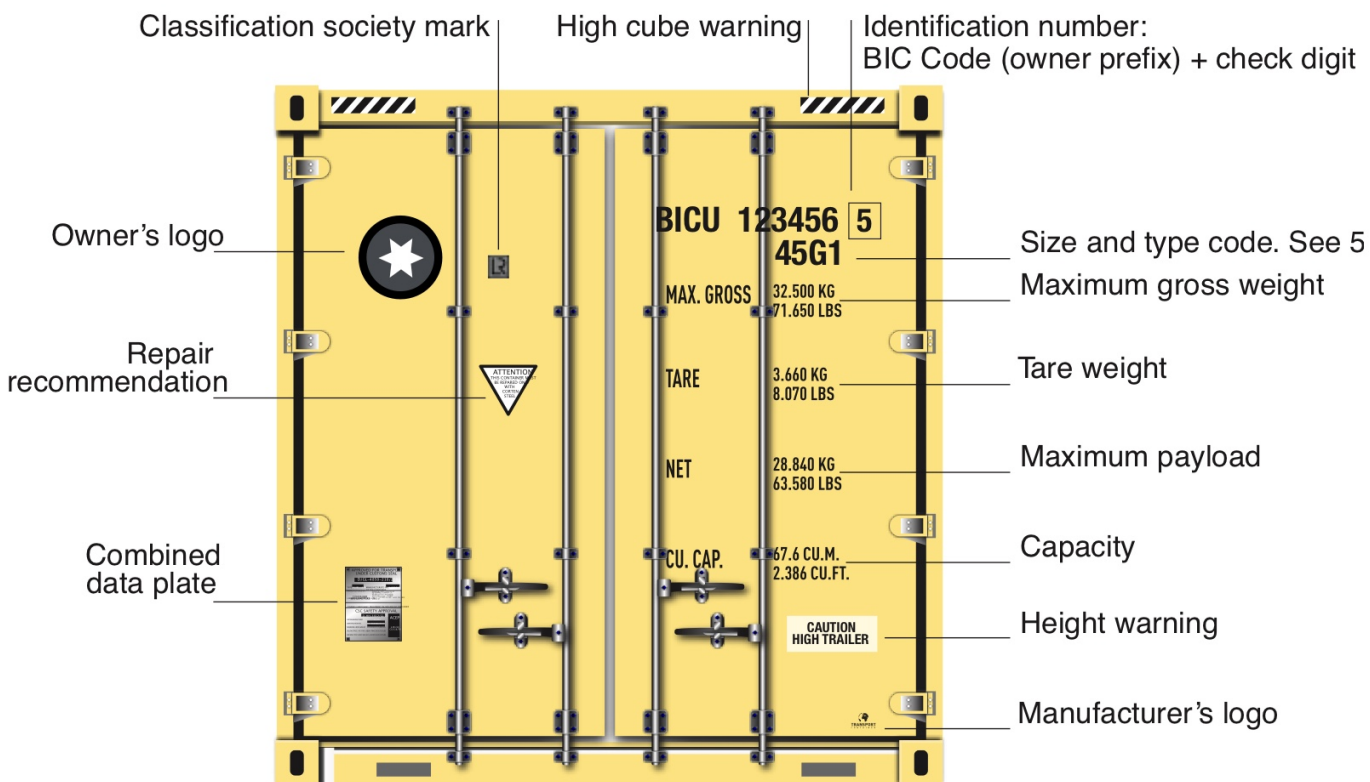
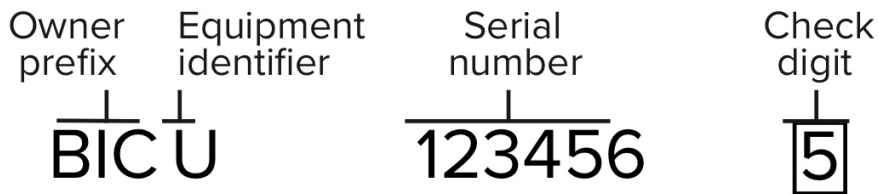
- payment or deposit of import duties at the customs office of departure or at offices en route,
- customs examination at offices en route,
- customs transit formalities like those laid down in the ITI convention.

ISO6346 – Shipping Container Standard

ISO 6346 is an international standard which describes the identification of a shipping container. The standard is maintained by the BIC (International Container Bureau) and

covers the serial number, owner, country code, and size of any given shipping container.

FOCUS ON THE PHYSICAL DISPLAY OF DOOR END



Equipment identifier:

- J: detachable freight container related equipment
- R: reefer (refrigerated) containers
- **U: freight containers**
- Z: trailers and chassis

Code	Type designation	Type group code	Main characteristics	Code A	Code B
G	General purpose container Without ventilation	GP	Opening(s) at one end or both ends	G0	GA

Code	Type designation	Type group code	Main characteristics	Code A	Code B
G			Passive vents at upper part of cargo space	G1	GB
G			Opening(s) at one or both ends plus "full" opening(s) on one or both sides	G2	GD
G			Opening(s) at one or both ends plus "partial" opening(s) on one or both sides	G3	GG
G			(unassigned)	G4	GJ
G			(unassigned)	G5	GM
G			(unassigned)	G6	GV
G			(unassigned)	G7	GW
G			(unassigned)	G8	GX
G			With bulk capabilities	G9	GY
V	General purpose container with ventilation	VH	Non mechanical system, vents at lower and upper parts of cargo space	V0	VA
V			(unassigned)	V1	VB
V			Mechanical ventilation system, located internally	V2	VD
V			(unassigned)	V3	VG
V			Mechanical ventilation system, located externally	V4	VJ
V			(unassigned)	V5	VM
V			(unassigned)	V6	VV
V			(unassigned)	V7	VW
V			(unassigned)	V8	VX
V			(unassigned)	V9	VY
B	Dry bulk cargo				
B	Non-pressurized, box type	BU	Closed	B0	BA

Code	Type designation	Type group code	Main characteristics	Code A	Code B
B			Airtight	B1	BB
B			(unassigned)	B2	BD
B			Rear discharge/cat flap type	B3	BG
B			Rear discharge/full width opening	B4	BJ
B			Rear discharge/full width fixed	B5	BM
B			(unassigned)	B6	BV
B			(unassigned)	B7	BW
B			Front discharge/full width	B8	BX
B			Side discharge	B9	BY
S	Named cargo	SN	Livestock carrier	S0	SA
S			Automotive carrier	S1	SB
S			Live fish carrier	S2	SD
S			(unassigned)	S3	SG
S			Generator	S4	SJ
S			(unassigned)	S5	SM
S			(unassigned)	S6	SV
S			(unassigned)	S7	SW
S			(unassigned)	S8	SX
S			(unassigned)	S9	SY
R	Thermal container				
R	Refrigerated	RE	Mechanically refrigerated	RO	RA
R	Refrigerated and heated	RT	Mechanically refrigerated and heated	R1	RB
R	Self-powered	RS	Mechanically refrigerated	R2	RD
R			Mechanically refrigerated and heated	R3	RG
R			(unassigned)	R4	RJ


Code	Type designation	Type group code	Main characteristics	Code A	Code B
R			(unassigned)	R5	RM
R			(unassigned)	R6	RV
R			(unassigned)	R7	RW
R			(unassigned)	R8	RX
R			(unassigned)	R9	RY
H	Thermal container				
H	Refrigerated and/or heated with removable equipment	HR	“Refrigerated and/or heated with removable equipment located externally, heat transfer coefficient $K = 0,4 \text{ W}/(\text{m}^2\text{-K})$ ”	H0	HA
H			Refrigerated and/or heated with removable equipment located internally	H1	HB
H			“Refrigerated and/or heated with removable equipment located externally, heat transfer coefficient $K = 0,7 \text{ W}/(\text{m}^2\text{-K})$ ”	H2	HD
H			(unassigned)	H3	HG
H			(unassigned)	H4	HJ
H	Insulated	HI	Insulated; heat transfer coefficient $K = 0,4 \text{ W}/(\text{m}^2\text{-K})$	H5	HM
H			Insulated; heat transfer coefficient $K = 0 \text{ W}/(\text{m}^2\text{-K})$	H6	HV
H			(unassigned)	H7	HW
H			(unassigned)	H8	HX
H			(unassigned)	H9	HY
U	Open-top container	UT	Opening(s) at one or both ends	U0	UA
U			Opening(s) at one or both ends, plus removable top member(s) in end frames	U1	UB
U			Opening(s) at one or both ends, plus opening(s) on one or both sides	U2	UD

Code	Type designation	Type group code	Main characteristics	Code A	Code B
U			“Opening(s) at one or both ends, plus opening(s) on one or both sides plus removable top member(s) in end frames”	U3	UG
U			“Opening(s) at one or both ends, plus partial opening on one side and full opening on the other side”	U4	UJ
U			(unassigned)	U5	UM
U			Open topped container with removable hard top	U6	UV
U			(unassigned)	U7	UW
U			(unassigned)	U8	UX
U			Coil carrier	U9	UY
P	Platform (container)	PL	Platform (container)	P0	PA
P	Platform-based container with incomplete superstructure:				
P	Fixed	PF	Two complete and fixed ends	P1	PB
P			Fixed posts, either freestanding or with removable top member	P2	PD
P	Folding (collapsible)	PC	Folding complete end structure	P3	PG
P			Folding posts, either freestanding or with removable top member	P4	PJ
P	Platform-based container with complete superstructure	PS	Open top, open ends (skeletal)	P5	PM
P	Platform-based container for named cargo	PT	Ship’s gear carrier	P6	PV
P			Car carrier	P7	PW
P			Timber/pipe carrier	P8	PX

Code	Type designation	Type group code	Main characteristics	Code A	Code B
P			Coil carrier	P9	PY
K	Pressurized tank container (liquids and gases)				
K		KL	Liquid tank non-regulated goods	K0	KA
K			Liquid tank dangerous goods 2,65 barc pressure	K1	KB
K			"Liquid tank dangerous goods >2,65 barc and 10 barc pressure"	K2	KD
K			Liquid tank dangerous goods > 10 barc high pressure	K3	KG
K			Liquid tank non regulated goods requiring power supply	K4	KJ
K			Liquid tank for dangerous goods 10 barc requiring power supply	K5	KM
K			Liquid tank for dangerous goods > 10 barc pressure requiring power supply	K6	KV
K			Cryogenic tank	K7	KW
K			Gas tank	K8	KX
K			(unassigned)	K9	KY
N	Pressurized and non-pressurized tank container (dry)				
N		NH	Hopper type vertical discharge	N0	NA
N			Hopper type rear discharge	N1	NB
N			(unassigned)	N2	ND
N		NN	Non pressurized rear discharge	N3	NG
N			Non-pressurized side discharge	N4	NJ
N			Non-pressurized tipping discharge	N5	NM
N			(unassigned)	N6	NV

Code	Type designation	Type group code	Main characteristics	Code A	Code B
N			Pressurized rear discharge	N7	NW
N			Pressurized side discharge	N8	NX
N			Pressurized tipping discharge	N9	NL
Air/surface container		AS		A0	

Example



▶ 2

▶ 2

▶ UB

= 22UB

A 20' open top container 8' wide and 8'6' high with reduced capabilities

- a) For containers designed and tested with full stacking (minimum superimposed mass of 213.360 kg) and racking (minimum transverse force of 150 kN) capabilities. Superimposed mass is as defined in ISO 1496-1:1990.
- b) This includes containers designed and tested with reduced stacking and/or racking capabilities, but not containers that are approved or operated with one door off or otherwise operated with a temporary reduced capability.
- c) $100\text{kPa}=1\text{bar}=105\text{Pa}=105\text{N/m}^2 =14.5\text{lb}/\text{in}^2$

DIFFERENT TYPES AND SIZES OF CONTAINERS

Length	Height	Type
2 – 20 Feet	2 – 8 Feet 6 Inches	G1 – General Purpose Container
4 – 40 Feet	5 – 9 Feet 6 Inches “High Cube”	R1 – Refrigerated Container
L – 45 Feet		U1 – Open Top Container

Length	Height	Type
M – 48 Feet		P1 – Platform Container
		T1 – Tank Container

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