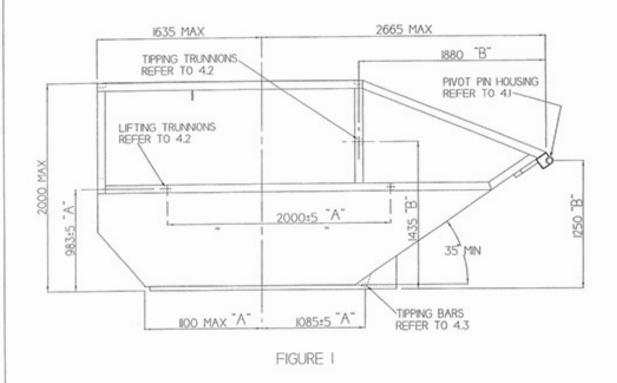
- 1 SCOPE
- 1.1 This standard specifies dimensional criteria for the manufacture of skip containers designed to be emptied into a rear loading refuse compactor vehicle (REL) and to ensure compatibility with skip loading equipment.
- 2 SIZES OF SKIP CONTAINERS
- 2.1 The standard considers skips in the range of 4,5 m³ (6 yd³) to 12 m³ (16 yd³).
- 3 DIMENSIONS OF SKIP COTAINERS
- 3.1 REL containers shall be constructed within the limits indicated in figure 1.



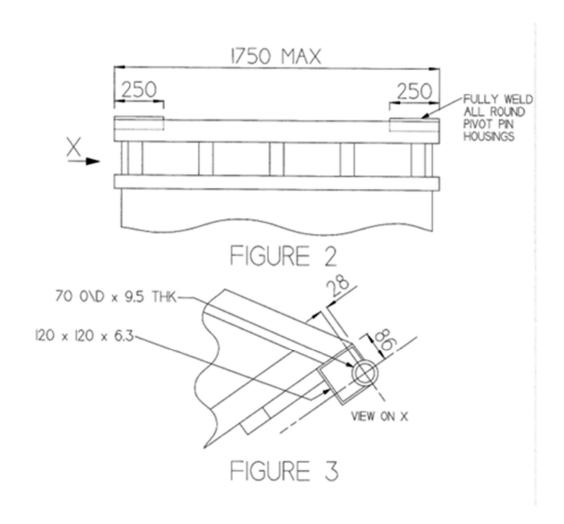
Dimensions marked "A" - refer to note 3.2.1

Dimensions marked "B" - refer to note 3.2.2

Issue No. 2	Date Oct 2014	Approved at CHEM meeting 09.10.201	
		Sheet 1 of 6	

Notes

- 3.2.1 REL containers do not need to correspond precisely with the illustration shown, however the dimensions marked "A" must be complied with to ensure compatibility with skip loaders.
- 3.2.2 Dimensions marked "B" relate to the interface of the skip with the REL vehicle and are given as a guide only. These dimensions shall be agreed between the skip manufacturer and the end user.
- 4 PIVOT PIN HOUSING
- 4.1 The construction of the pivot pin housings shall be as shown in figures 2 and 3 below.



Issue No. 2	Date Oct 2014	Approved at CHEM Meeting 09.10.2014	
			Sheet 2 of 6

4.2 LIFTING AND TIPPING TRUNNIONS

4.2.1 The lifting and tipping trunnions shall be of the style shown and shall be fitted to the skip container as illustrated in Figure 4 below.

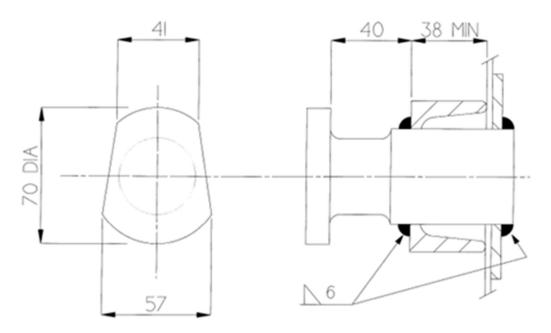
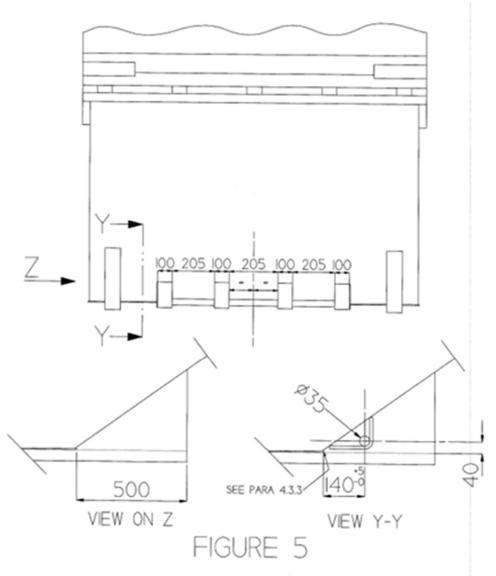


FIGURE 4. LIFTING AND TIPPING TRUNNIONS

- 4.2.2 The lifting trunnions shall be attached at the specified positions as shown by the dimensions marked * in Figure 1. Reference may also be made to CHEM standard TS14 for the position of lifting trunnions.
- 4.2.3 The tipping trunnions shall be attached at the specified position as shown by the dimensions marked + in Figure 1. Other positions for the tipping trunnions shall be first agreed between the supplier of the REL equipment, the skip manufacturer and the end user.
- 4.2.4 The trunnions shall be fitted through stiffening channels such that the shank of the trunnion passes through the skip side plate and is welded as indicated.
- 4.2.5 The trunnions should preferably be produced by drop forging but may be fabricated provided the dimensions are adhered to.
- 4.2.6 The skip manufacturer shall provide adequate support by means of internal bracing to ensure stability of the lifting and tipping trunnions and the skip side plates.

Issue No. 2	Date Oct 2014	Approved at CHEM Meeting 09.10.2014	
			Sheet 3 of 6

- 4.3 TIPPING BARS
- 4.3.1 The REL skip container shall have tipping bars as shown in Figure 5 below to permit tipping by skip loaders.



- 4.3.2 The skip manufacturer shall ensure that the supports for the tipping bars are adequate to withstand the loads imposed on them when tipping a fully laden skip.
- 4.3.3 There must be no projection of the base plate in the area of the tipping hook engagement with the tipping bar thus preventing inadvertent hooking on the skip base,

Issue No. 2	Date Oct 2014	Approved at CHEM Meeting 09.10.2014	
			Sheet 4 of 6

- 4.4 STABILISERS
- 4.4.1 REL skips shall incorporate stabilisers as illustrated in Figure 5, view on 'Z'.
- 4.4.2 The stabilisers shall be designed so that there is no possibility of the REL skip tipping forward when unevenly loaded.
- 4.5 LIDS AND LOADING DOORS
- 4.5.1 The lids, when folded open, must fasten to the roof of the skip by means of a quick release chain. The chain shall be short enough to ensure that the lid cannot fall forward and cause damage to any part of the REL tailgate.
- 4.5.2 Side opening doors shall be hinged to the rear of the skip to avoid the possibility of a door falling open during tipping into the REL.

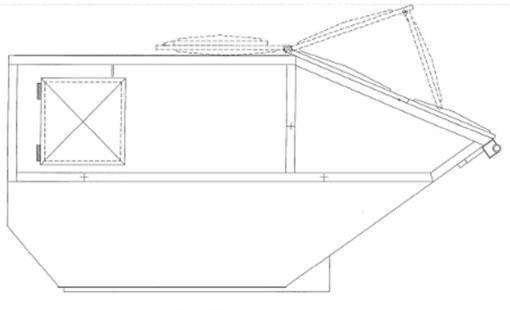


FIGURE 6

- 5 MATERIALS
- 5.1 REL skip bodies shall be manufactured from steel plate to BS 1449 grade HR15 and rolled sections to BS 4360 grade 43A.
- 5.2 The lifting and tipping trunnions shall be in steel with good welding characteristics. Forged trunnions are preferred in forging quality steel to BS 970 FN4.
- 5.3 The tipping bars shall be in steel to EN10025.
- 5.4 The tipping bar housings shall be in steel to BS 3602/27 and BS 4360 grade 43C.
- 6 WELDING
- 6.1 The manufacturer shall ensure good quality welding throughout. Particular attention shall be paid to the attachment of lifting and tipping trunnions and tipping bars, ensuring adequate weld strength to withstand the loads and operating conditions encountered in REL skip usage.
- 7 DEVIATIONS
- 7.1 As a general rule REL skips intended for normal use with REL refuse collection vehicles shall not deviate from this standard.
- 7.2 Where REL skips are required for special purpose and the dimensional and construction criteria deviate from this standard the final design shall be agreed between the REL skip manufacturer, the REL refuse collection vehicle manufacturer and the end user.
- 7.3 Special REL skips which do not comply with this standard shall be clearly marked as indicated below.

CAUTION

THIS SKIP DOES NOT COMPLY WITH CHEM STANDARD TS10

- 8 MANUFACTURERS DATA PLATE
- 8.1 A manufacturers data plate shall be attached to the REL skip stating the following:

Manufacturer
Year of Manufacture
Manufacturers Reference
Weight empty in kilograms
Volume in cubic metres
Manufactured in accordance with CHEM standard TS10

Issue No. 2	Date Oct 2014	Approved at CHEM Meeting 09.10.2014	
			Sheet 6 of 6

Disclaimer

The Container Handling Equipment Manufacturers Association (CHEM) accepts no liability for any accident, injury, or loss allegedly resulting from the use of information provided by the organisation or its members.

CHEM is an advisory body, not a statutory authority. It is the responsibility of manufacturers and operators to ensure, through appropriate calculations, testing, and consultation with statutory bodies (e.g. the British Standards Institution and the Health and Safety Executive), that containers and handling equipment are designed and manufactured in compliance with relevant legislation.

CHEM provides information in the form of technical standards, guidance documents, and website content, intended to promote compatibility between containers and associated lifting equipment, as well as to encourage safe operating practices. This information is based on the extensive manufacturing and operational experience of its members. Any drawings or diagrams included are for illustrative purposes only and should not be considered constructional drawings.

The most recent versions of all documents are available for **free download** from the official CHEM website.

CHEM reserves the right, at its **sole discretion**, to **review, revise, and amend** its Technical Standards and other Documents at any time without prior notice.

It is the responsibility of users to verify that they are consulting the **latest edition** of each document, as **published on the CHEM website**.