OPERATOR : GRIMALDI COMPAGNIA DI NAVIGAZIONE S.P.A.

FLEET SERIAL NOS:

15m - 90 ton General Cargo Rolltrailer

Grimaldi Fleet Nos:

ELGC 104001 - 5	TSC 30158 - 1
ELGC 104002 - 0	TSC 30158 - 2
ELGC 104003 - 6	TSC 30158 - 3
ELGC 104004 - 1	TSC 30158 - 4
ELGC 104005 - 7	TSC 30158 - 5
ELGC 104006 - 2	TSC 30158 - 6
ELGC 104007 - 8	TSC 30158 - 7
ELGC 104008 - 3	TSC 30158 – 8
ELGC 104009 - 9	TSC 30158 - 9
ELGC 104010 - 2	TSC 30158 - 10
ELGC 104011 8	TSC 30158 - 11
ELGC 104012 - 3	TSC 30158 - 12
ELGC 104013 - 9	TSC 30158 - 13
ELGC 104014 - 4	TSC 30158 - 14
ELGC 104015 - 0	TSC 30158 - 15
ELGC 104016 - 5	TSC 30158 - 16
ELGC 104017 - 0	TSC 30158 - 17
ELGC 104018 - 6	TSC 30158 - 18
ELGC 104019 - 1	TSC 30158 - 19
ELGC 104020 - 5	TSC 30158 20
ELGC 104021 - 0	TSC 30158 - 21
ELGC 104022 - 6	TSC 30158 - 22
ELGC 104023 1	TSC 30158 – 23
ELGC 104024 - 7	TSC 30158 - 24
ELGC 1040252	TSC 30158 - 25

SPECIFICATION

TSC 30158

15M - 90 TON G

GENERAL CARGO ROLLTRAILER

Platform length		15000 mm
Platform width		3000 mm
Rear overhang		4300 mm
Platform height	front/rear	ca. 750 / 800 mm

Payload	distributed cargo	90 ton
Tare weight, without goose- neck		ca. 8,5 ton
Fifth wheel load, without gooseneck		21 ton
Total load on running gear		78 ton

No. of pendular axles	4 in 2 axle lines
	on rocker
	beams
No of wheels	8 pcs

Speed	loaded	6 km/h
	empty	20 km/h

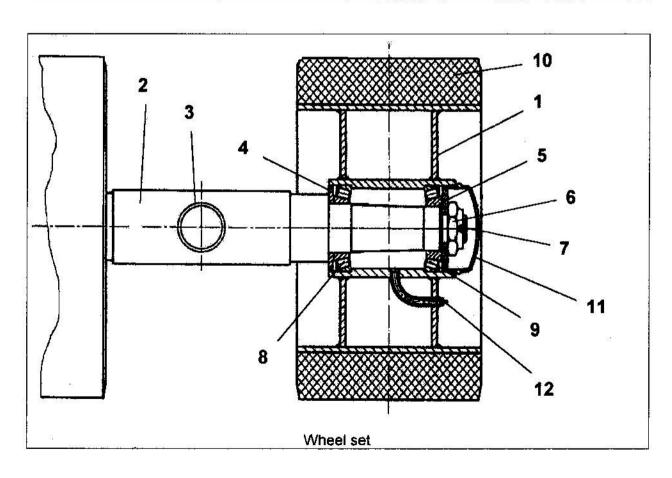
Tyre dimension	solid rubber	22x16x16 inch
Platform cover	wood	50 mm
Lashings	on each long side 9	totally 22 pcs
D-ring	front 2, rear 2 on each long side 2	total 4 pcs

Retractable pins		total 4 pcs
Stanchion pockets	front 2, per side 8, rear 2	total 20 pcs
Forklift pockets		total 2 pcs

Painting top coat colour similar HEMPEL 5225

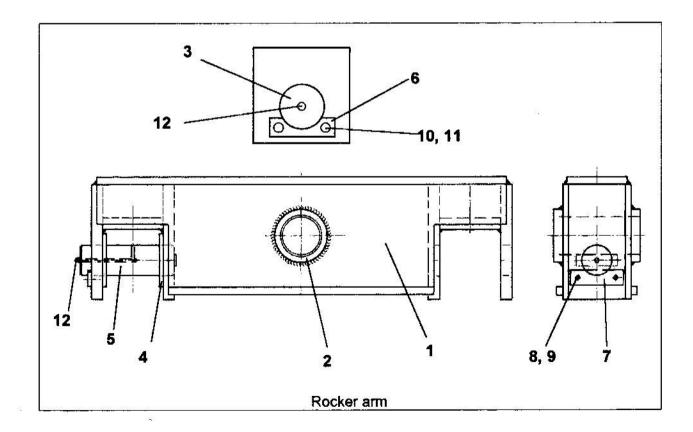
WHEEL SET

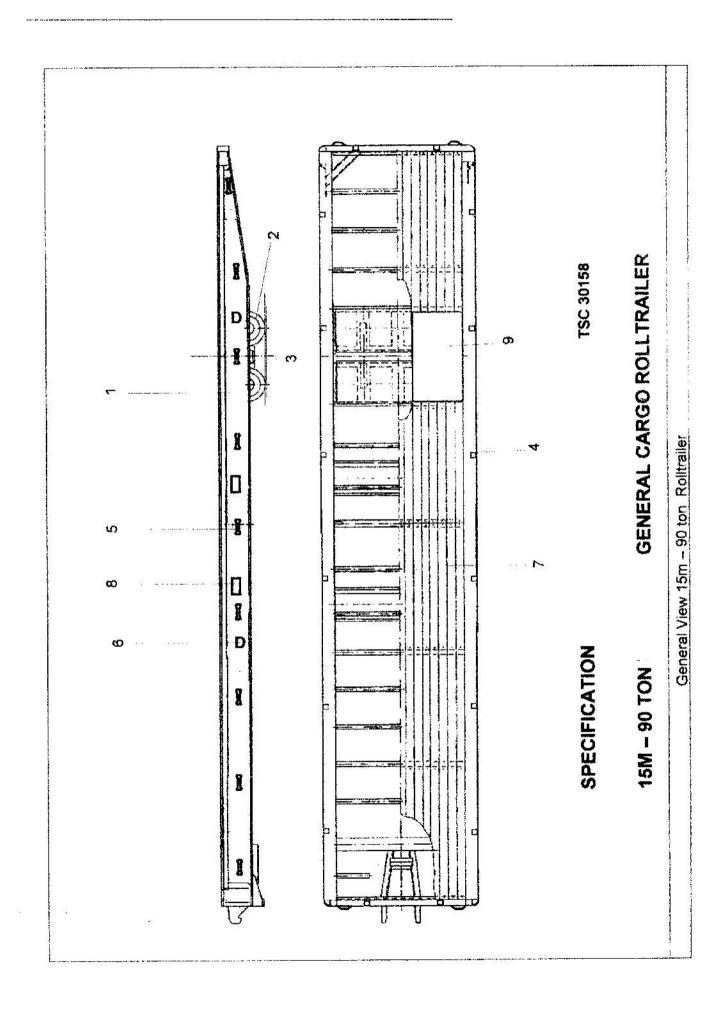
Number of spare part list 0.10.29.6016		
Item	Description	Part no
1	Rim	0.10.29.6016.01
2	Pendular axle	0.10.29.6016.02
3	Bushing	0.10.29.6016.03
4	Disk plate inside with sealing ring	0.10.29.6016.04
5	Disk plate outside with sealing ring	0.10.29.6016.05
6	Horned nut	0.10.29.6016.06
7	Split pin	0.10.29.6016.07
8	Roller bearing inside	32020
9	Roller bearing outside	30216
10	Solid rubber tyre	0.10.29.6016.10
11	Wheel cap	0.10.29.6016.11
12	Greasing nipple	0.10.29.6016.12



ROCKER ARM

Number of spare part list 0.06.29. 6033		
Item	Description	Part no
1	Rocker beam	0.06.29. 6033.01
2	Bushing	0.06.29. 6033.02
3	Rocker bolt	0.06.29, 6033.03
4	Disk	0.06.29. 6033.04
5	Axle bolt	0.06.29. 6033.05
6	Retaining plate rocker bolt	0.06.29. 6033.06
7	Retaining plate axle bolt	0.06.29. 6033.07
8	Screw	0.06.29. 6033.08
9	Spring washer	0.06.29, 6033.09
10	Screw	0.06.29. 6033.10
11	Spring washer	0.06.29. 6033.11
12	Greasing nipple	0.06.29. 6033.12





15M - 90 TON GENERAL CARGO ROLLTRAILER TSC 30158

GENERAL ARRANGEMENT DRAWING

See attached drawing no. 03.06.29.6036

SPARE PARTS

GENERAL VIEW

Number	umber of spare part list 0.06.29. 6032	
Item	Description	Part no
1	Frame	0.06.29.6032.01
2	Wheel set	0.10.29. 6016
3	Rocker arm	0.06.29.6033
4	Stanchion pockets	0.06.29.6032.04
5	Lashing	0.06.29.6032.05
6	D-ring	0.06.29.6032.06
7	Wood cover	0.06.29.6032.07
8	Forklift pocket	0.06.29.6032.08
9	Tear plate	0.06.29.6032.09

GENERAL CARGO ROLLTRAILER

TSC 30158

How to demount axie

- Lift rear side of trailer by hydraulic jack to the extend that frame weight does not rest on the wheels
- 2. Remove safety plate and axle bolt
- 3. Lift frame further until axle is free from rocker arm
- 4. Shift axle out of the rocker arm
- 5. Lift axle
- 6. Remove hub cap
- 7. Unlock and remove securing pin and axle nut
- 8. Pull out wheel
- 9. Pull out disk plate with sealing-ring

Frame

The frame structure and weldings should be checked regularly in order to prevent major damages. In case of any bending or cracks please contact your supplier.

Lubrication

Greasing point	No	Greasing interval
Rocker arm pins	2	3 months
Axle pins	4	3 months
Hubs	8	6 months

Use multi purpose bearing grease.

SERVICE MANUAL

General

The rolltrailers are of simple and strong construction. The following inspections and maintenance works should be effected within regular periods to assure safe and trouble free operation. Damaged parts have to be replaced. Replaced parts must have the same characteristics as the original part. Preferably buy spares from the manufacturer.

First time inspection

Wheel bearings have to be checked and if necessary readjusted after the first 50 operating hours.

How to readjust wheel-bearing

- Make sure that trailer is in parking position
- · Lift rear side of trailer so that wheels can be rotated by hand
- Put suitable supports under lifted trailer
- Check wheel: In case of axial movement or not smooth rotation
 - Remove hub cap (warm cap up to appr. 60 °C)
 - · Remove split pin from horned nut
 - · Tighten homed nut until wheel is blocked
 - · Untighten homed nut until wheel rotates free but without any axial movement
 - Refit split pin
 - Refit hub cap (warm cap up to appr. 60 °C)
- No parts forgotten to refit?
- · Lower rear side of trailer

Running gear

Make visual inspection of running gear regularly (approx. in 6 months intervals).

Solid rubber tyres

Make visual inspection of tyres within regular intervals (approx. every 1 month).

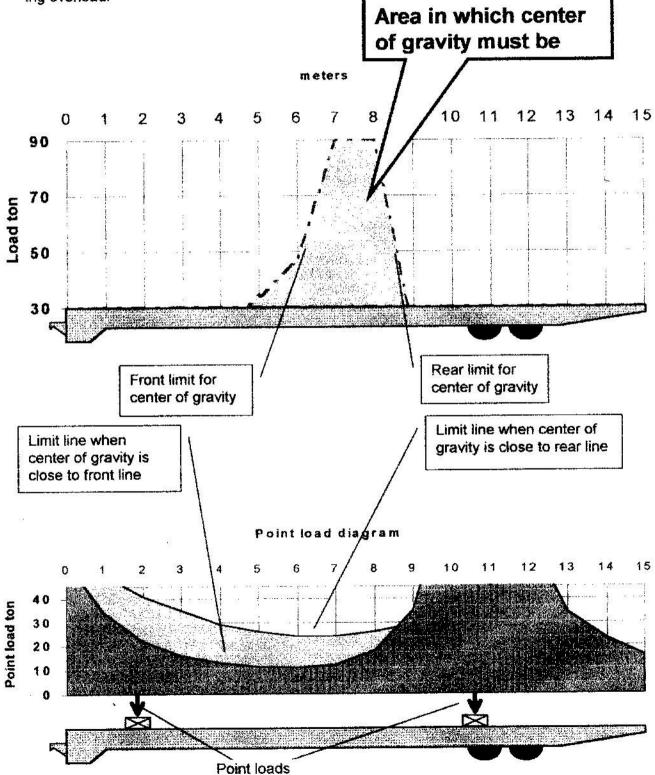
Wheels

Inspect wheels regularly (approx. in 6 months intervals):

- Check wheel rotation
- Check noise, if abnormal then demount wheel and check roller-bearings replace it if necessary
- 3. 'Check axial movement of wheel. In case of axial movement readjust roller bearings (see above "How to readjust wheel-bearing")

LOADING SCHEME: CENTRE OF GRAVITY

The center of gravity (COG) of the load must be within the "grey" area as indicated for preventing overload.



RESIDUAL RISK

Danger

Danger of getting crushed during coupling and uncoupling or operation.

Persons standing between tractor and trailer during coupling and uncoupling or operation might seriously get crushed.

Before starting with coupling and uncoupling, make sure that nobody is standing within the danger area.

Warning!

Danger when driving over gradients.

Travelling on gradients involves the risk of slipping and tilting, especially when

- trailer is loaded to maximum capacity
- load has a high centre of gravity
- uneven and/or slippery road surface
- high speed
- · sudden braking or speeding up
- travelling across slopes

Travel only on routes sufficiently paved and signposted.

On gradients only travel at reduced speed and with utmost attention.

Lift the fifth wheel of tractor not more than necessary to achieve sufficient ground clearance under the trailer front leg.

Observe the maximum permissible payloads.

Warning!

Danger of getting crushed when working under lifted trailer.

Always put strong supports under a lifted trailer before you start any work under the trailer.

Warning!

Risk of injuries because of incorrect operation.

Incorrect operation may cause personal and material damages.

Follow all indications stated in these operating instructions concerning operation, inspection and maintenance. In case of doubt always consult experts or your supplier.

OPERATING INSTRUCTIONS

General

The rolltrailer is suitable for handling heavy parcels and miscellaneous cargo.

Loading

- The Rolltrailer may only be loaded up to the specified payload. The load must be equally
 distributed over the whole platform area.
- Make sure that the load can not shift
- The bigger the load, the more the center of gravity should be in the center of the platform

Operation

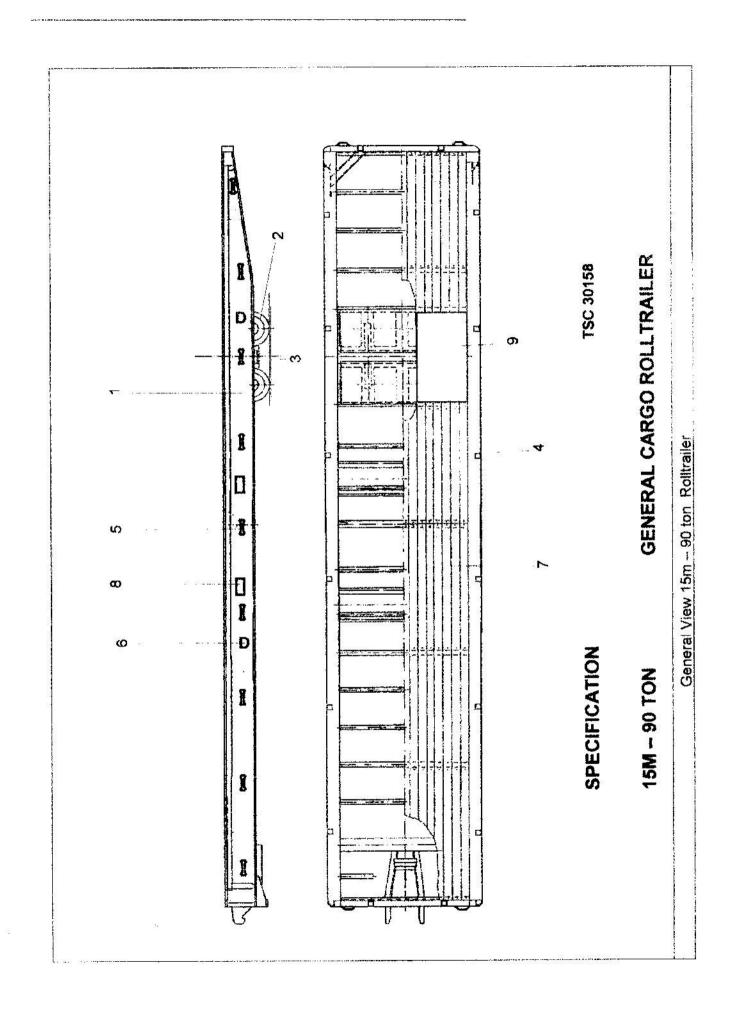
- The rolltrailer can only be moved by special trucks with an elevating fifth wheel coupling, minimum capacity 30 t and minimum lifting height 800 mm, using a suitable detachable gooseneck with a minimum capacity of 30 tons.
- The trailer is not suitable for transportation of persons
- The roadway should be even and without big obstacles
- · When reversing and the sight is not good use a guide

Coupling

- Reverse the truck with the gooseneck completely lowered, directing the gooseneck toe into the coupling mouth of the rolltrailer
- . Then lift the fifth wheel coupling. The rolltrailer will be coupled automatically
- . Make sure that the gooseneck-brackets are firmly engaged with the hooks of the trailer
- Lift until front support of trailer has sufficient ground clearance (100 150 mm)

Speed

Maximum speed of a rolltrailer should not exceed 6 km/h fully loaded and 20 km/h empty.



CE CONFORMITY DECLARATION EC-Homologation Declaration

conforming to EC directive on machines 98/37/EEC, Annex II A

Type of machine

15m - 90 ton Rolltrailer

Serial Nos: from ELGC 104001-5 to ELGC 104025-2 inclusive Operator:

Grimaldi Compagnie di Navigazione S.p.A. 13 Via Marchese Compodisola 80133 Naples Italy

developed, designed and manufactured according to

EC Directives for Machinery (98/37/EG)

The following national standards, directives and specifications have been applied:

DIN EN 287-1 DIN EN 292 (Re-Welding and Weld Preparation of Steelwork - Part 1)

(Re-Weiding and Weid Preparation of Steelwork — Fait 1)
(Safety of Machines, General Rules & General Design Regulations)

The following national standards, directives and specification have been applied: VBG 36