OPERATOR : ATLANTICA DI NAVIGAZIONE S.P.A.

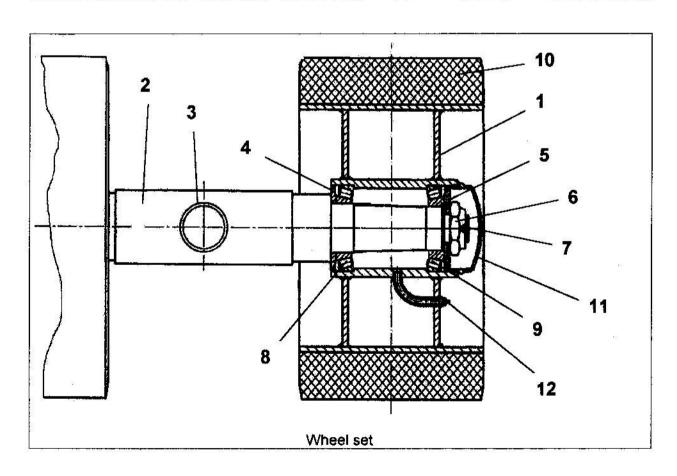
FLEET SERIAL NOS:

15m - 90 ton General Cargo Rolltrailer

Atlantica Fleet Nos:	Transtec Serial Nos
ELEM 104026 - 0	TSC 30161 - 1
ELEM 104027 - 6	TSC 30161 - 2
ELEM 104028 1	TSC 30161 - 3
ELEM 104029 - 7	TSC 30161 - 4
ELEM 104030 - 0	TSC 30161 - 5
ELEM 104031 - 6	TSC 30161 - 6
ELEM 104032 - 1	TSC 30161 - 7
ELEM 104033 - 7	TSC 30161 - 8
ELEM 104034 - 2	TSC 30161 - 9
ELEM 104035 - 8	TSC 30161 - 10
ELEM 104038 - 3	TSC 30161 - 11
ELEM 104037 - 9	TSC 30161 - 12
ELEM 104038 - 4	TSC 30161 - 13
ELEM 104039 - 0	TSC 30161 14
ELEM 104040 - 3	TSC 30161 - 15

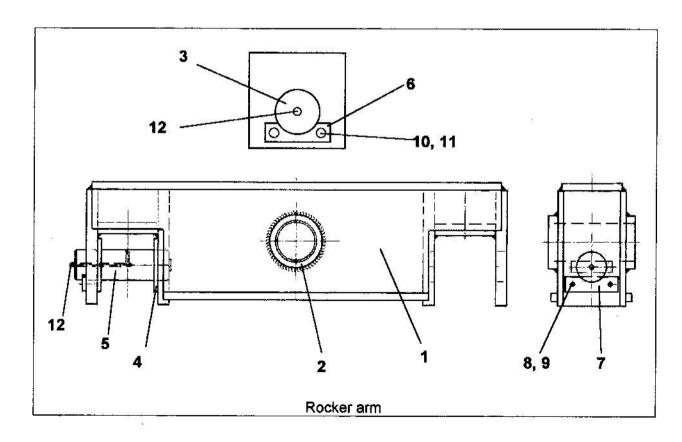
WHEEL SET

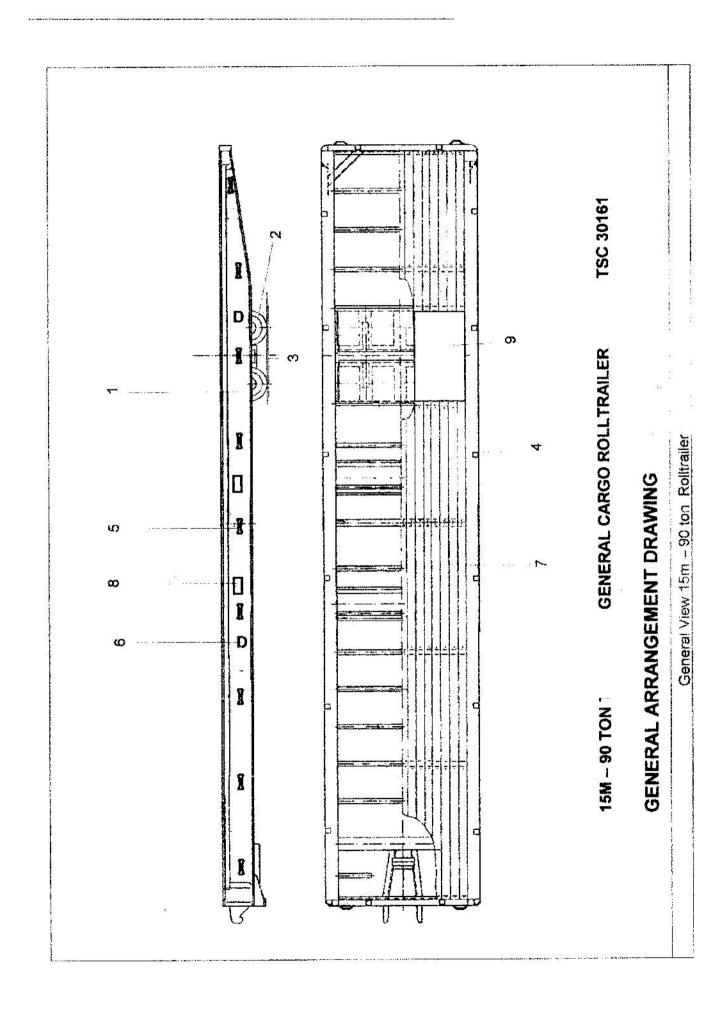
Number of spare part list 0.10.29.6016		
Item	Description	Part no
1	Rim	0.10.29.6016.01
. 2	Pendular axle	0.10.29.6016.02
3	Bushing	0.10.29.6016.03
4	Disk plate inside with sealing ring	0.10.29.6016.04
5	Disk plate outside with sealing ring	0.10.29.6016.05
6	Horned nut	0.10.29.6016.06
7	Split pin	0.10.29.6016.07
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 30161

GENERAL ARRANGEMENT DRAWING

See attached drawing no. 03.06.29.6036

SPARE PARTS

GENERAL VIEW

Number of spare part list 0.06.29. 6032		
ltem	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 D-ring	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 30161

How to demount axle

- 1. 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 homed nut
 - Tighten horned nut until wheel is blocked
 - Untighten horned 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):

- 1. 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. Area in which center of gravity must be meters 14 0 5 6 7 12 13 15 2 3 90 70 Load ton 50 30 Rear limit for Front limit for center of gravity center of gravity Limit line when center of Limit line when gravity is close to rear line center of gravity is close to front line Point load diagram 10 12 13 14 15 6 3 40 Point load ton 30 20 10 0 Point loads

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

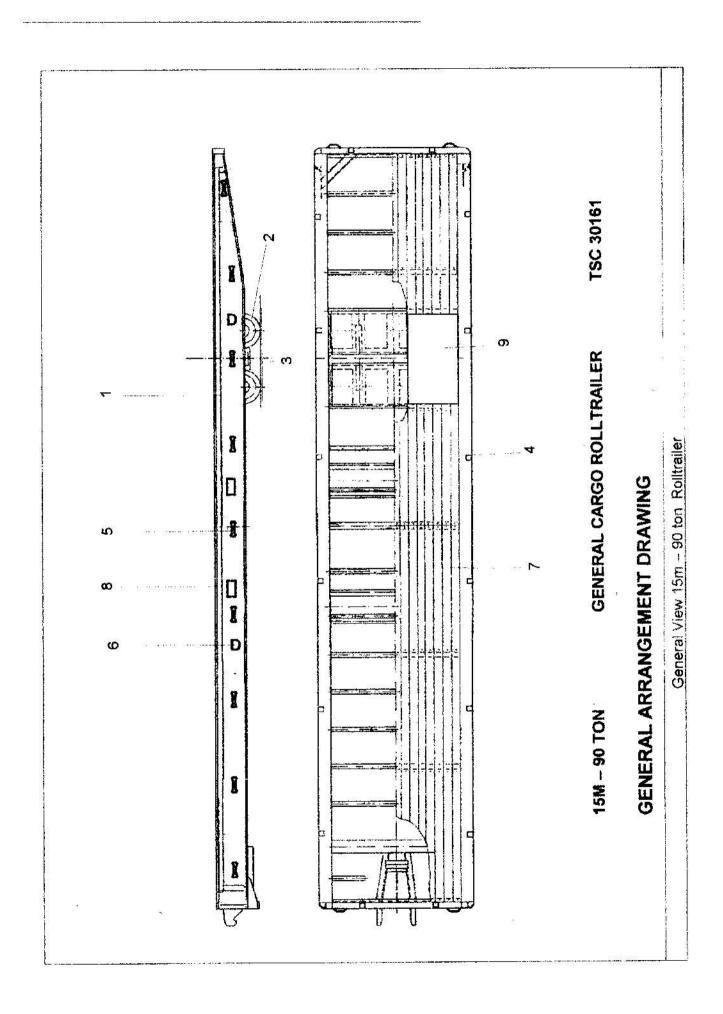
- The rolltrailer can only be moved by special trucks with an elevating fifth wheel coupling, minimum capacity 30 t and minimum lifting height 800 mm, using a suitable detachable gooseneck with a minimum capacity of 30 tons.
- The trailer is not suitable for transportation of persons
- · The roadway 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.



SPECIFICATION

TSC 30161

15M - 90 TON

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- ca. 8,5 ton

neck

Fifth wheel load, without 21 ton

gooseneck

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

front 2, rear 2

D-ring 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

CE CONFORMITY DECLARATION EC-Homologation Declaration

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

Type of machine

Operator:

15m - 90 ton Rolltrailer

Serial Nos: from ELEM 104026-0 to ELEM 104040-3 inclusive Atlantica 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)

(Safety of Machines, General Rules & General Design Regulations)

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