

MZ - MZ_ES_250_1970_Manual_de_intretinere

Content

Introduction

For the First Time on Three Wheels

Technical Data of the Swing Arm Sidecar

Brief Description of the MZ Cargo Sidecar

Attachment to MZ Motorcycles

... and now the Adjustment

The Hydraulics

Master Cylinder

Brake Line

Wheel Cylinder

Filling and Bleeding

Where is the Fault

Spare Parts Procurement for Your Superelastik Operating and Installation Instructions for Superelastik (MZ/Simson) -

Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

1 of 30 03.11.2008 02:08

Image 1: X-ray image of the 'Superelastik' sidecar From two wheels to a sidecar combination

next point ; Index

If one day you need to take your grown-up offspring with you, or your passenger wants camping equipment for the weekend, then the solo rider will reluctantly decide to attach a sidecar. Reluctantly, because this is generally associated with the idea that riding a sidecar combination is a concession to advancing age, and the fast solo machine now becomes a 'lame means of transportation'. But sidecar riding does not necessarily require 'heavy chunks' of 500 cm³ and more, as was common in the past. With a powerful

250cm³ MZ motorcycle, and not just any sidecar, but the 'Superelastik' sidecar (whose long-stroke suspension is matched to the suspension characteristics of the Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

2 of 30 03.11.2008 02:08

ES and Simson types), acceleration values and average travel speeds can be achieved that are only known from heavy sidecar combinations. The latter is possible because the driver can really use the engine power and the good driving characteristics of the sidecar combination:

With the hydraulic sidecar brake, a braking deceleration of 7.0 m/s² is achieved even at the maximum permissible total mass, compared to 7.2 m/s² for the ES without a sidecar. This means you no longer need a double safety distance: if the brake lights light up in front of you in dense traffic or on the open road with smooth traffic flow, the 'Superelastik' sidecar combination will stop sooner than the cars in front of you!

But the comfort of the passenger has also been taken into account: the sidecar has a hinged upper section and thus allows a car-like entry from the right side of the road. The climbing stunts between the vehicle and the sidecar body - which often resulted in burned calves - are now a thing of the past.

Image 2 Sidecar entry Two storage compartments on the right and left in the sidecar upper section are used to store road maps, gloves, sunglasses and other various small items. We hope that you will transfer your love for motorcycles to the sidecar combination and have made the transition easier for you with some tips from our

driving experience. Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

3 of 30 03.11.2008 02:08

For the First Time on Three Wheels

next point ; Index

Image 3 Locking the sidecar upper section in the circle Plug and socket for sidecar lighting

You have certainly admired the sidecar drivers at off-road or racing events, how they elegantly and confidently sped through the curves at incredible speed. Perhaps you are convinced that you can do it almost as well as 'the others'.

We would like to urgently warn you against this dangerous misconception! Even the most experienced solo rider must start again from the beginning as a sidecar rider and relearn. The solo motorcycle is 'laid' or 'pushed' into the curve by shifting the center of gravity to the side, but the sidecar combination as a two-track vehicle is only steered! Both types of steering are so fundamentally different in their effects that the sidecar novice should not immediately venture into the densest traffic.

On a free space (possibly a sports field), where you cannot cause any damage, cornering is practiced until the driving behavior of the sidecar combination in curves is so familiar to you that you react correctly even in a dangerous moment. For this purpose, some right and left curves are marked, as is customary in skill driving. During these 'slalom rides' do not be afraid of the sidecar coming up. If you do not panic and do not react incorrectly, it will go down again! Practice driving with the 'third leg in the air', because not theoretical knowledge and optimism protect you from accidents, but only driving routine through intensive training and sensible driving! Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

4 of 30 03.11.2008 02:08

The following basic rules must be observed when cornering:

When cornering to the left, take off the gas at the entrance to the curve. The sidecar wants to continue - due to the 'inertia'. The front wheel turned to the left forces it to run around the motorcycle. Light braking at the apex of the curve supports this process.

Do not 'oversteer' and yank the sidecar combination into the curve! This costs tires and brings the risk of tipping! a.

When cornering to the right, reduce speed slightly before the curve and accelerate briskly again at the entrance to the curve.

Here, too, the inertia becomes noticeable again - when the vehicle is accelerated, the sidecar lags behind somewhat. The motorcycle wants to run around the sidecar, so to speak. You must take advantage of this impulse and 'keep the gas on' in right-hand bends.

But always keep a certain reserve in the twist grip, because if the sidecar does come up (uneven road surface, excessive speed), it will only go down again by accelerating further and shifting the upper body to the right - towards the sidecar. Reacting incorrectly usually means an accident! As a sidecar novice, do not let it come to an 'emergency braking'

in right-hand bends! b.

What is a necessity for the solo motorcycle is even more valid for sidecar operation - always use the front wheel brake as well!

Technical Data of the Swing Arm Sidecar 'Superelastik'

next point ; Index

(The deviations on the SW for Simson-Sport are in parentheses)

Chassis: Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis
<http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

5 of 30 03.11.2008 02:08

Frame welded sheet metal pressed frame

Connections 3 quick connections

Stabilizer between rear wheel and sidecar wheel swing arm

Suspension and damping an ES shock absorber, adjustable Spring travel approx. 100 mm

Wheel complete ES rear wheel, interchangeable 3.50x16 (3.25x18)

Brake hydraulic, operated by the foot lever.

Body: Entry Swiveling upper section with locking mechanism

Entry width 400 mm

Seat width 450 mm in the middle

Footwell width 370 mm in the middle

Footwell height 380 mm in the middle

Seat space length 1100 mm

Storage compartments right and left in the SW upper section

Trunk Flap with security lock

Width 485 mm in the middle

Height 400 mm in the middle

Depth 500 mm in the middle Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis

<http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

6 of 30 03.11.2008 02:08

The type plate is attached behind the seat on the trunk. Dimensions and Weights Greatest length with sidecar 2100 mm (2018 mm) Greatest width with sidecar 1650 mm with mirror (1610 mm) Height 1185 mm with mirror

Curb weight of the complete 'Superelastik' - sidecar 85 kp Load capacity of the SW 115 kp ES can be taken in the SW: 1 adult and 1 child under 7 years, or 2 children up to 12 years. Tire pressure for ES: front, with and without passenger or occupied SW 1.4 at rear, with occupied sidecar 2.1 at rear, with occupied sidecar and passenger 2.6 at sidecar wheel 1.4 at Tire pressure for Simson-Sport: front, with and without passenger or occupied SW 1.5 at rear, with occupied sidecar 2.0 at rear, with occupied sidecar and passenger 2.7 at sidecar wheel 1.5 at Braking deceleration of all ES sidecar combinations, with permissible total mass. Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

7 of 30 03.11.2008 02:08

'Superelastik' with hydraulic SW brake 7.0 m/s² 'Elastik' without SW brake

5.4 m/s²

Speed Braking distance Braking distance 30 km/h 5.5 m 6.5 m 50 km/h 14.0 m 17.9 m 70 km/h 27.4 m 35.0 m 90 km/h 45.3 m 58.0 m Measured on dry asphalt road; the driver's reaction time was not taken into account. Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

8 of 30 03.11.2008 02:08

Road consumption --- ES 250/2 sidecar 2 persons -o- ES 250/1 sidecar 2 persons -* ES 300 sidecar 2 persons Image 4 Road consumption Brief description of the MZ Cargo Sidecar (LSW)

next point ; Index Operating and Installation Instructions for Superelastik (MZ/Simson) - Miraculis <http://www.mz-b.de/miraculis/aw/mz/text/swb0/swb0.html>

9 of 30 03.11.2008 02:08

The cargo sidecar has the same chassis as the Superelastik sidecar intended for passenger transport. Therefore, it is easily possible to exchange the boat for the body of the LSW. The box is a lightweight construction with sheet metal side walls and a 20 mm thick wooden floor.

Dimensions and Weights: Total mass of the box 43 kg Empty mass of the complete cargo sidecar 75 kg Permissible total mass of the LSW 200 kg Permissible payload 125 kg Greatest length 1450 mm Greatest width 680 mm Height 430

mm

Electrical System Like the 'Superelastik', the cargo sidecar is also equipped with a flashing light. The electrical system is connected as with the 'Superelastik' SW. Please note:

Never sc