SAMPA 300T COMPLETE AIR SUSPENSION

PRODUCT HIGHLIGHTS

LOMBARDI

sampa.com

SAMPA®

New ADVANCED FEATURES

EXPERIENCE THE OEM QUALITY

Designed, tested, and approved by our world-class R&D center CAMP, Sampa 300T is ready to conquer the aftermarket with new advanced features...

- Durable with OEM equal or even better raw material
- Precise geometry for perfect fit in installation
- Exclusive enlarged air spring platform for easy and durable installation
- Welding with fully automatic robots provides production consistency
- Enhanced lifecycle with refined structure thanks to stress relieving
- Cataphoresis Coating provides high salt endurance up to 1000h

Rubber Bonded Metal Components

The Challenge

When curing thick rubber parts or parts with complex geometry, it is a challenge to maintain equal heat distribution throughout the structure. If this process is not carefully planned, the outer parts might get over-cured while trying to cure the inner parts. This faulty procedure causes deformation of the cross links, which in turn, leads to premature cracking and drying.

The Sampa Solution

When designing the mold, we determine the optimum number and location of points from which the rubber will be injected. To perfect the curing process, we use simulations that determine rubber flow patterns from these injection points. This guarantees equal heat distribution and enhances the durability of the part.

#SampaUnique

Please, scan to watch Sampa 300T video

SAMPA 300T
COMPLETE AIR SUSPENSION

501.188 *Replaces: HT300TB15-001**

Stiff, strong, durable, safe

501.178

Bracket, Balance Arm Axle

Replaces: S-23790-1

Shock absorbers with OEM-equal performance

501.183

Shock Absorber

Replaces: A-20126

Compatible with industry standard frames

501.179

Bracket, Balance Arm Axle

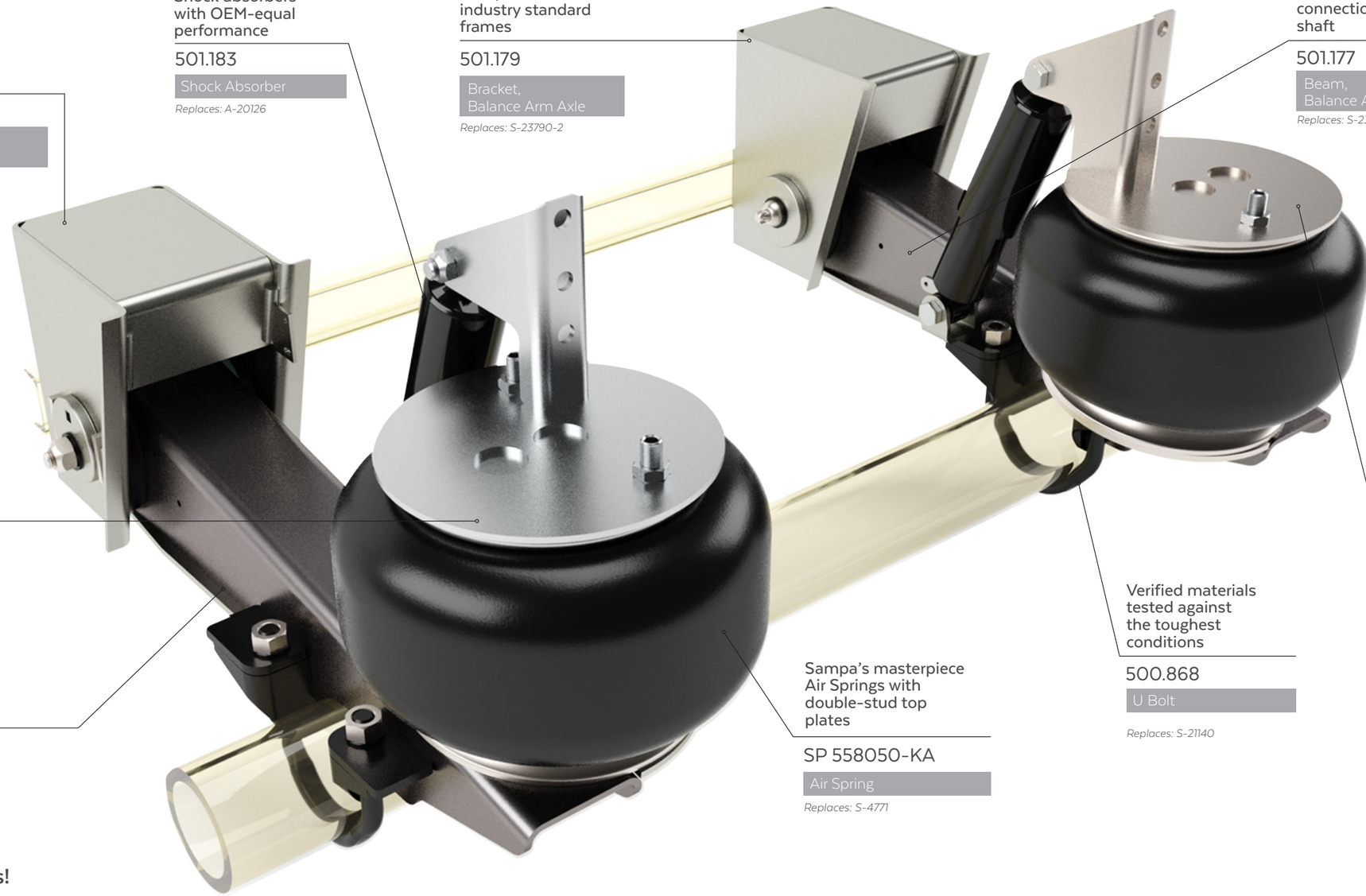
Replaces: S-23790-2

Suspension beam with rigid connection to the shaft

501.177

Beam, Balance Arm Axle

Replaces: S-23790-2



Simple design for minimal maintenance

501.181

Plate, Air Spring

Replaces: C-20199-2

Simple design for minimal maintenance

501.180

Plate, Air Spring

Replaces: C-20199-1

Verified materials tested against the toughest conditions

500.868

U Bolt

Replaces: S-21140

Perfect welding with robotic welding machine

501.176

Beam, Balance Arm Axle

Replaces: S-23790-1

Sampa's masterpiece Air Springs with double-stud top plates

SP 558050-KA

Air Spring

Replaces: S-4771

Axle and beam shown as transparent elements in the image are not included.

Keep your ride as smooth as it gets!

Manufactured with the best raw materials and the latest technology available, Sampa Complete Air Suspension offers you smoother rides and enhanced cargo safety. Equipped with one of Sampa's masterpiece air springs SP558050-KA and other components with exceptional quality means extended vehicle life as well as much less downtime and lower maintenance costs for fleets. This product will keep you going regardless of the road conditions you encounter.

More than 50 years of experience with rubber compounds and metallurgy, combined with the significant scientific achievements of our Center for Advanced Materials and Parts - CAMP, allows us to develop materials, processes and technologies that set each Sampa product apart from the competition. As a manufacturing giant with a 100.000 m² integrated factory campus, we are able to offer quality with competitive prices worldwide.

The brand SAMPA® is a registered and protected trademark. Registration numbers are IR 1147491, IR 1153904, CTM 010528438, OAPI3201200019, TR 2002/19391, TR 2011/112926.

*The parts shown are products of Sampa that can be used instead of the original part of the vehicle manufacturer. OEM numbers and trademarks are stated for comparison only.

Sampa Air Springs
SP 558050-KA

Inner Rubber Layer
- Pressure maintenance
- Perfect seal
- Chemical resistance

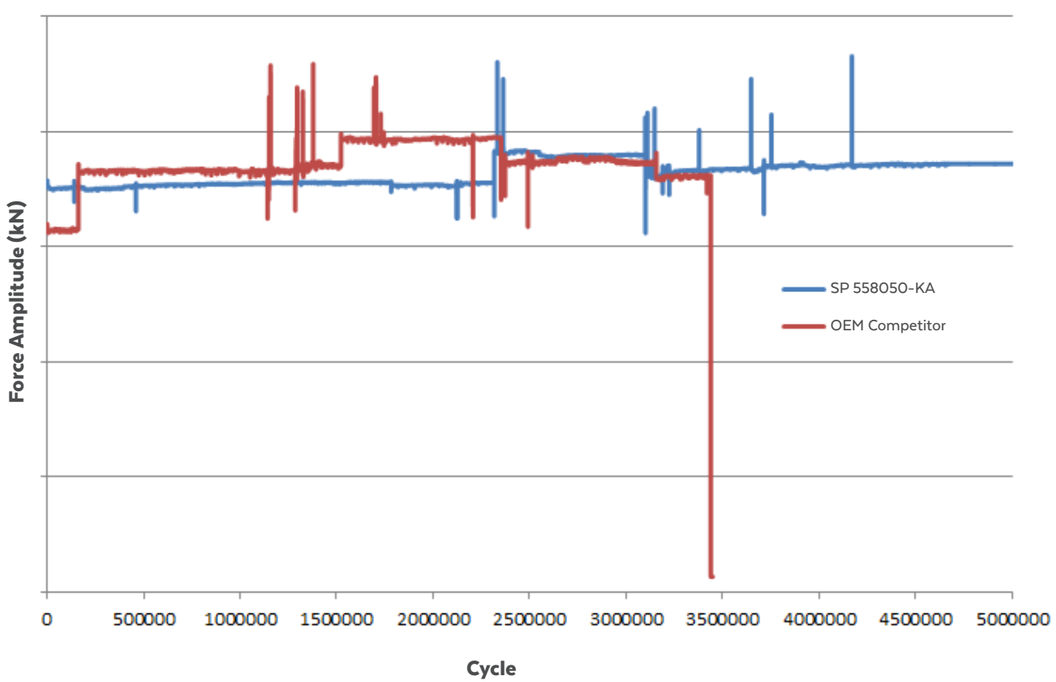
Fabric
- Structural resilience
- Ensured geometry

Rubber Coating
- Materials bonding reinforced
- Perfectly spaced plies guarantee even force distribution

Outer Rubber Layer
- Mechanical protective function
- UV and chemical resistance prevent premature cracking
- Energy dissipation - puncture resistance

Sampa 300T Exclusive Air Spring Platform
- Enlarged and reinforced platform for easy and sturdy installation
- Even load-distributing design to extend air spring lifecycle

Benchmarking
OEM Competitor fails at 3,4 million cycles while Sampa Air Spring continues to perform even after 5 million cycles.



Utilizing MTS to Refine Air Spring Performance

Proving field testing is very expensive, time-consuming and doesn't allow for "in-service" inspection. To save time and offset delays in development, we supplement field testing with cost-effective mechanical testing in our high-tech MTS test lab, capable of providing greater testing speed, control and repeatability.

We run a short burst of high-performing cycles to measure and fine tune damping characteristics and run millions of cycles for durability testing. The systems reach extremely high velocities and forces for performance testing, and operate at very low velocities and forces for accurately measuring the impact of seal friction and gas charge.

MTS ensures precise alignment with original parts, so Sampa can bring safer, more durable and fuel-efficient products to market faster and at a lower cost.

Advanced features include
- Reduced noise, vibration, and harshness
- Improved fuel consumption
- Improved tire life
- Better resale
- Less load shifting and damage

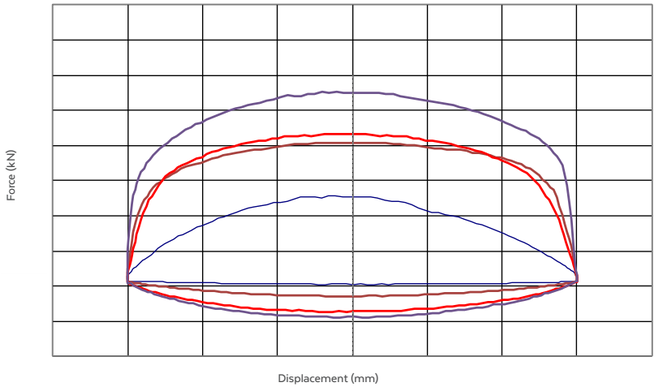
We test Sampa Air Springs for

Component Characterization | Durability | Noise | Vibration | Harshness

Sampa Shock Absorbers
501.183

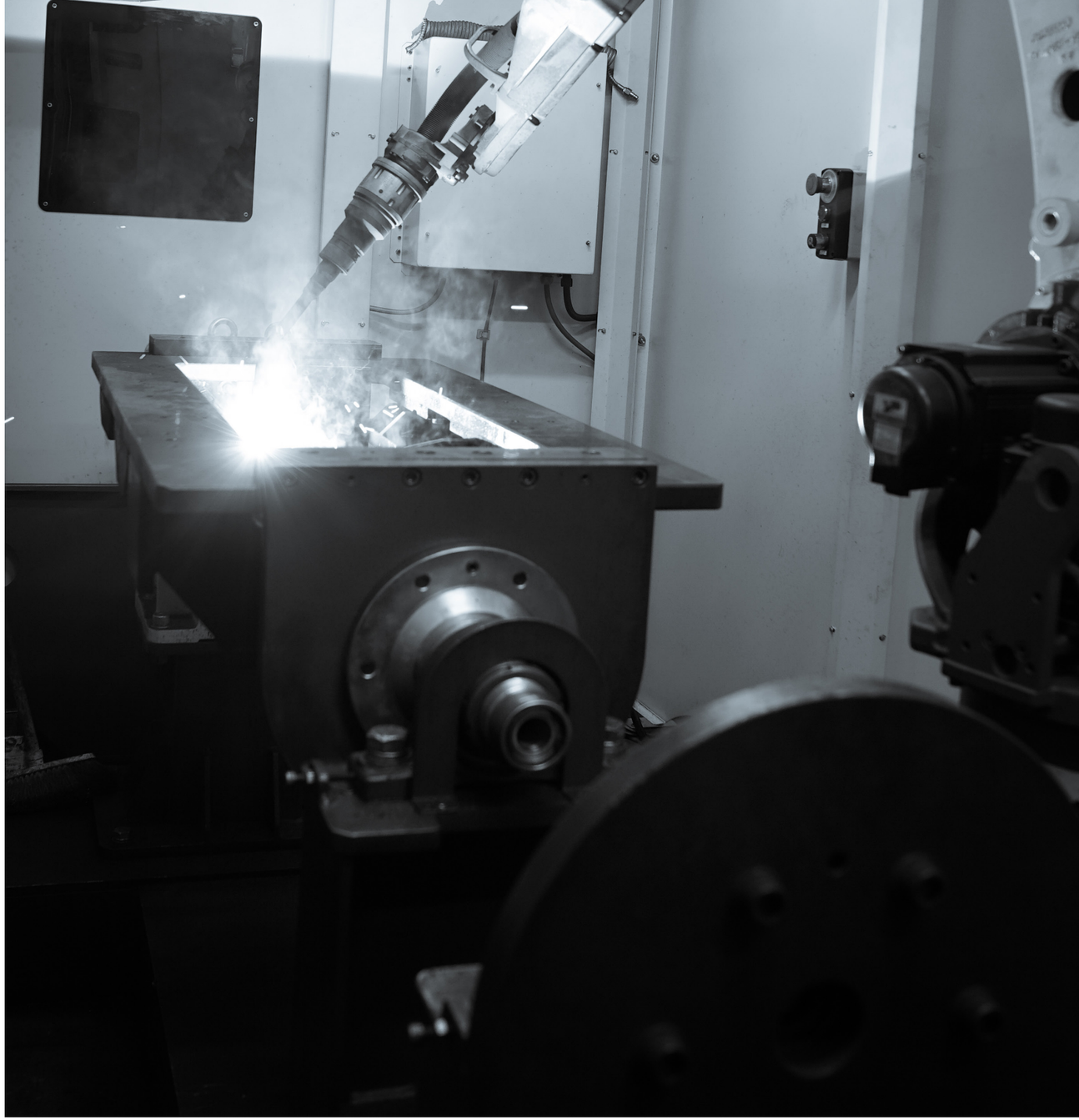
Dynamic benchmarking test results show Sampa Shock Absorbers perform equal to OEM competitors. As seen in this force vs displacement test, Sampa Shock Absorbers and the OEM competitor performance data overlap.

Sampa 501.183, OEM Competitor



Advanced Features

- Silent
- Fast response with minimum lag
- High handling in poor road conditions



Increased Production Stability with Fully Automatic Robotic Welding Machines
Fully automatic robotic welding machines eliminate human error and provide even welding throughout the complete suspension. One of the many key points that make Sampa 300T highly durable!

Sampa 300T
Complete Air Suspension

501.188
Complete Suspension, Balance Arm Axle

Spare Parts

Sampa No.	Description	Replaces	Dimensions
501.186	Beam, Balance Arm Axle Roadside, Complete	-	9”x19,41”
501.176	Beam, Balance Arm Axle Roadside	S-20186-1	6,19”x20,03”
501.187	Beam, Balance Arm Axle Curbside, Complete	-	9”x19,41”
501.177	Beam, Balance Arm Axle Curbside	S-20186-2	6,19”x20,03”

Sampa No.	Description	Replaces	Dimensions
501.178	Bracket, Balance Arm Axle Roadside	C-23790-1	9”x12,5”x9,29”
501.179	Bracket, Balance Arm Axle Curbside	C-23790-2	9”x12,5”x9,29”
501.180	Plate, Air Spring Parts Roadside	C-20199-1	ø12,01”x4,06”x8,12”
501.181	Plate, Air Spring Parts Curbside	C-20199-2	ø12,01”x4,06”x8,12”
SP 558050-KA	Service & Complete Air Spring	S-4771	ø11,31”x3/4”-16UNF 1/4”-18NPTx1/2”-13UNC Max :18,4-Min: 5,75
501.183	Shock Absorber	A-20126	ø3,26”xø2,75”x11,71”x17,5”
075.075	Rubber Bushing, Balance Arm Axle	C-3558	ø1,24”xø152x171

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Sampa 300T
Complete Air Suspension

Sampa No.	Description	Replaces	Dimensions
015.173	Plastic Washer	S-21099	ø2,36”xø7”x0,33”
105.445	Machined Washer	S-20924	ø0,88”xø4”x1,45”
105.458	Machined Washer	S-20925	ø0,88”xø3,95”x1,49”
500.551	Repair Kit, Balance Arm Axle New Type	S-24679	W 7/8”-9Gx9,8”
500.551A	Repair Kit, Balance Arm Axle Previous type	S-24679 S	W 7/8”-9Gx9,8”
500.357	Repair Kit, Balance Arm Axle New Type	S-24680	ø0,88”xø4”x1,45”x W 7/8”-9Gx9,8”
500.357A	Repair Kit, Balance Arm Axle Previous type	S-24680 S	ø0,88”xø3,95”x1,49”x W 7/8”-9Gx9,8”

Sampa No.	Description	Replaces	Dimensions
500.550	Repair Kit, Balance Arm Axle New Type	S-24691 S	ø1,24”xø6”x6,73”
500.550A	Repair Kit, Balance Arm Axle Previous type	S-24691 S1	ø1,24”xø6”x6,73”
500.569	Repair Kit, Balance Arm Axle New Type	S-24691	ø1,24”xø6”x6,73”
500.569A	Repair Kit, Balance Arm Axle Previous type	S-24691 S2	ø1,24”xø6”x6,73”
501.185	Repair Kit, Air Spring Parts	A-4903	W 1/2”-13/1,22”
501.184	Repair Kit, Shock Absorber	A-20031	W 3/4” 10 /3,18”
500.868	U Bolt, Balance Arm Axle With Nut and Washer	S-21140	W 7/8” 14Gx7,25”

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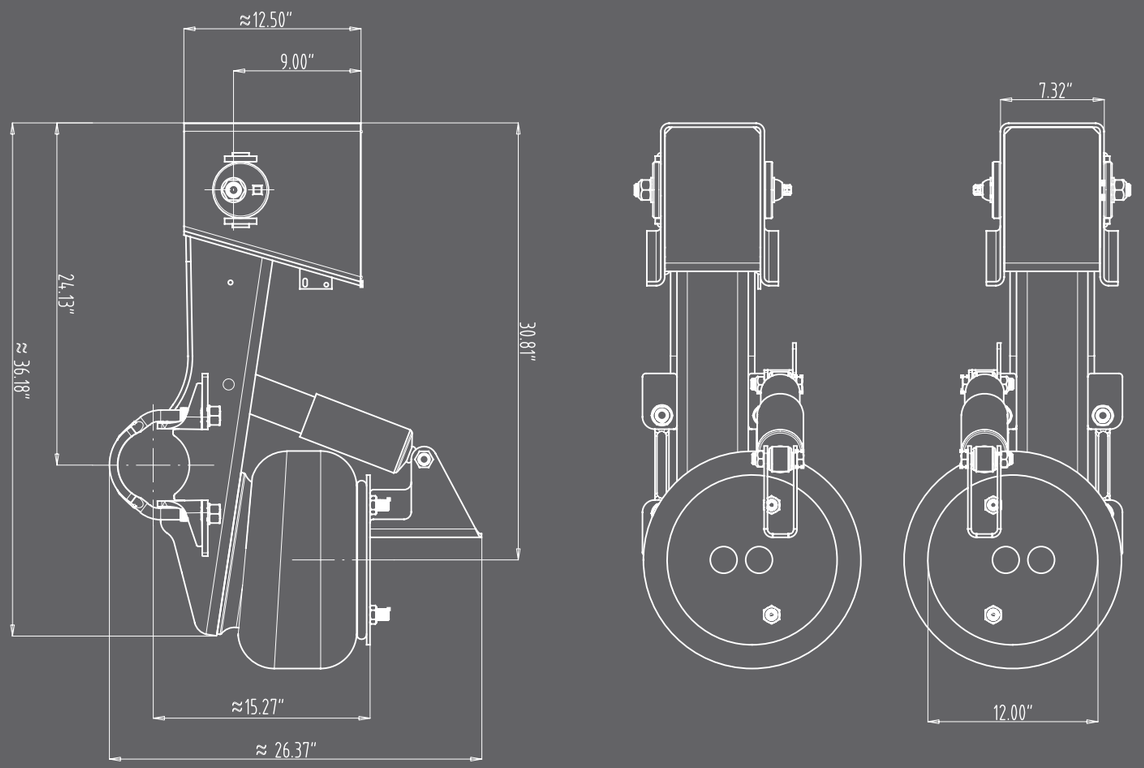
Specifications & General Dimensions

Capacity: 30,000 lbs. (13,600 kg)
Suitable Axle Data: 5-inch diameter round, 5/8-inch wall, 15- and 16.5-inch brakes

Benchmarking Parameters	SAMPA	IAM Competitor	OEM Competitor
Cataphoresis Coating	Yes	No	Yes
Salt Sprey Test	Up to 1000 h	Up to 480 h	Up to 1000 h
Stress Relieving*	Yes	No	Yes
Welded Frame Material	St 52 S355MC / ASTM A 1018 HSLAS-F Grade 50 Class 2	St 37 EN 10025-2:2004 S235JR / ASTM A 1011 SS Gr.33	St 52 S355MC / ASTM A 1018 HSLAS-F Grade 50 Class 2
Air Spring Fatigue Test Cycles	5M+	1 M	Failed at 3.4 M

*Stress Relieving enables high-strength metal parts; a process exclusive to Sampa 300T



SAMPA

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Perform Quality

Sampa is proud to apply **9 quality systems** to ensure safe production, best products, and satisfied customers.

Our production facility is also awarded the prestigious **Ford Q1 Certification**, which is **OEM's standard** for exceptional quality and customer satisfaction.

Ford Q1	Ford Preferred Quality Status
ISO 9001	Quality Management
IATF 16949	Automotive Quality Management
ISO 10002	Customer Satisfaction Management
ISO 14001	Environmental Management
ISO 27001	Information Security Management
ISO 28001	Security Management for Supply Chain
ISO 45001	Occupational Health & Safety Management
TUV 9001	Quality Management

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ADVANCED PARTS

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