

Air Suspension Ride Height Gauges

M-728-001

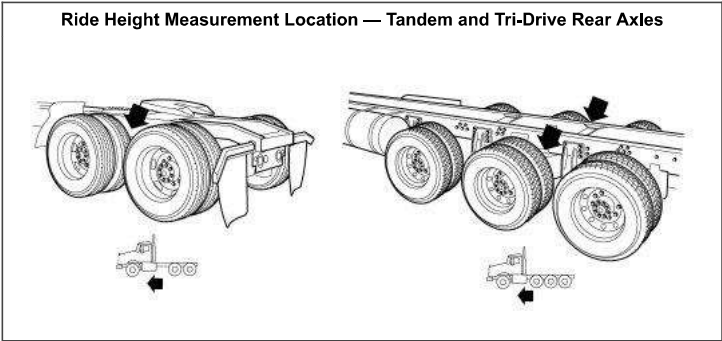
(August 2008)

Valid for

All CXU, CHU, GU,MRU,LEU,TD with Hendrickson and Mack rear suspension.

Case description

Various air suspensions are available for MACK model chassis. Each suspension model is unique in that the ride height specifications are different, along with the gauges used to measure ride height and the method of adjustment. This bulletin provides information concerning ride height gauge part numbers, which gauge is used for each suspension model, where the gauges can be ordered and identifying features of each suspension. Ride height is measured at the front-rear axle on tandem-drive chassis, and at the center-rear axle on tri-drive chassis. Certain air suspensions on tri-drive models utilize a height-control valve on both sides of the chassis. Because of this, ride height must be measured and adjusted on both the left- and right-hand sides of the vehicle.

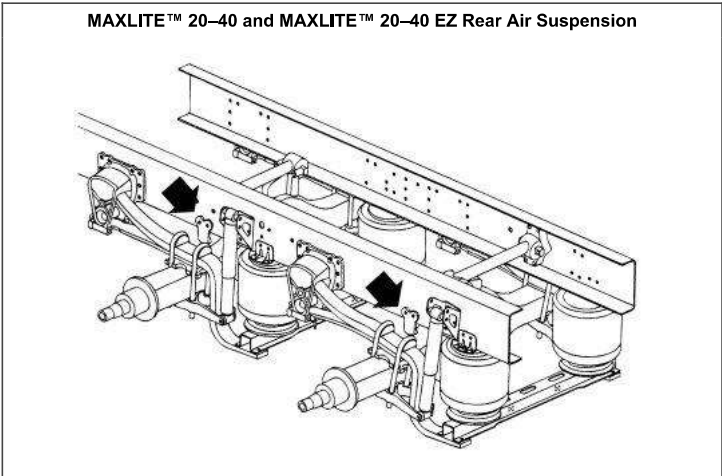


This bulletin covers the following air suspensions:

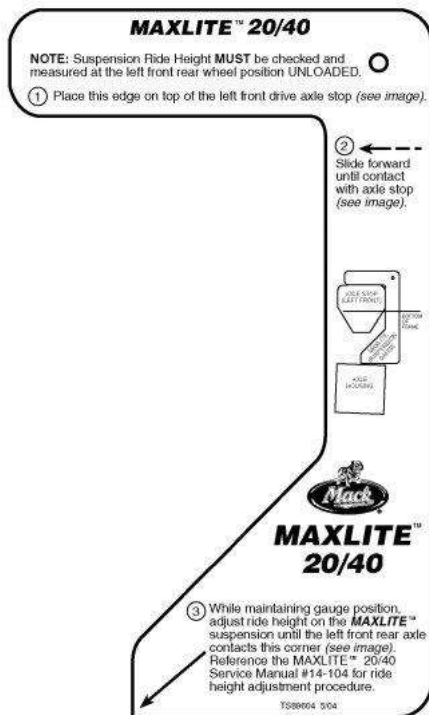
Suspension Model	Hyperlinks
MAXLITE™ 20–40, 20–40 EZ	MAXLITE™ 20–40 and MAXLITE™ 20–40 EZ
MaxAir 40/40A	MaxAir™ 40/40A Rear Air Suspension
MACK AL and AL II	MACK AL and AL II Air Suspension
Hendrickson PRIMAAAX®	Hendrickson PRIMAAAX® Rear Air Suspension
Hendrickson AIRTEK®	AIRTEK® Front Axle Air Suspension

Note: Does not apply to Mack Trucks Australia.

MAXLITE™ 20–40 and MAXLITE™ 20–40 EZ



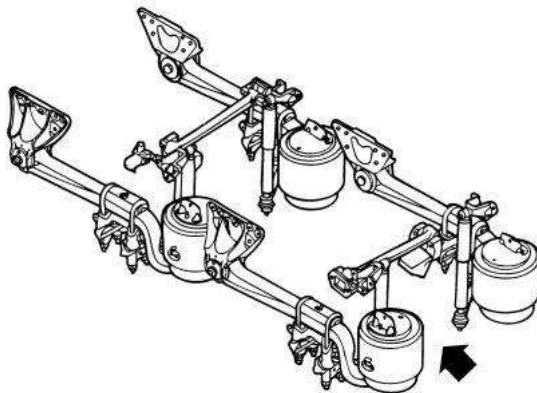
- Suspension Model Designation and Usage** – MAXLITE™ 20–40 and MAXLITE™ 20–40 EZ rear air suspension is used on CXU, CXN, CXP, CHU and CHN model chassis equipped with ArvinMeritor™ and Eaton axles.
- Unique Identifying Feature** – The unique identifying feature of the MAXLITE™ air suspension is the external axle stops (see figure above).
- Ride Height Specification** – 216 mm (8-1/2") as measured from the top of the axle housing (midpoint) to the top of the left-hand axle stop.
- Ride Height Gauge part number and Ordering Information** – Use ride height gauge part number TS89604 (refer to figure below). This gauge can be ordered on-line by visiting the Service Publications section on the Mack Trucks web site at [www.macktrucks.com](#). Dealers can order the ride height gauge by visiting the Trucks Dealer Portal, or by faxing a completed BR313 Requisition Form to Pacesetters Business Services at 610-264-9465.



- **Service Manual** – For ride height measurement and adjustment procedures, along with all other service information, refer to the MAXLITE™ 20–40 Rear Air Suspension Service Manual, 14–104.

MaxAir™ 40/40A Rear Air Suspension

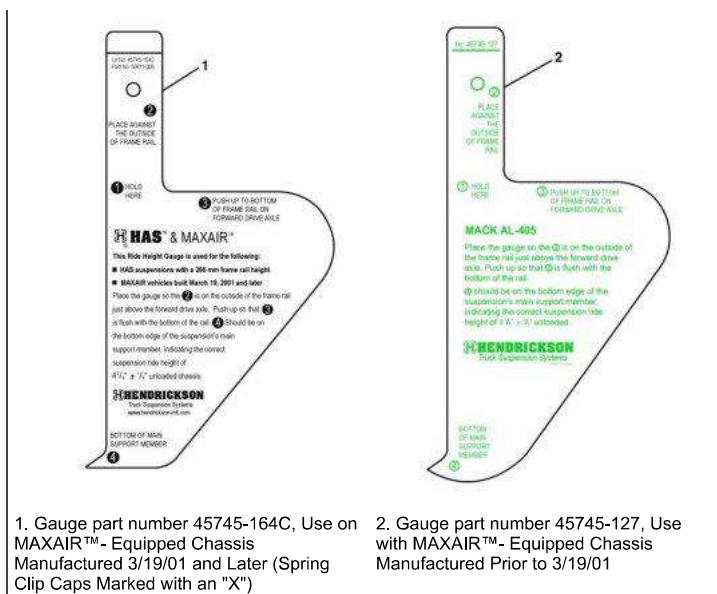
MaxAir™ 40/40A Rear Air Suspension



- **Suspension Model Designation and Usage** – The MaxAir™ 40/40A is used on CH and CX model chassis equipped with either ArvinMeritor™ or Eaton axles.
- **Unique Identifying Feature** – The most obvious identifying feature of the MaxAir™ 40/40A suspension is that this suspension does not utilize a cross channel section between the air bags (refer to figure above).
- **Ride Height Specification** – Beginning March 19, 2001, a different axle seat and spacer was implemented into production. This change resulted in the ride height being 9.53 mm (3/8 in.) lower than chassis manufactured prior to March 19, 2001. To identify chassis having the different axle seats and spacers, the spring clip (U-bolt) top caps on both sides of the chassis are marked with an "X" (refer to service bulletin SB-136-010). Ride height specifications for the MaxAir™ 40/40A suspension are as follows:
 - Chassis manufactured March 19, 2001 and later — 123.83 mm (4-7/8")
 - Chassis manufactured prior to March 19, 2001 — 133.35 mm (5-1/4")
- **Ride Height Gauge part number and Ordering Information** – The difference in ride heights requires two different ride height gauges. Part numbers for the gauges are as follows:
 - **Hendrickson part number 45745-164C** — For MaxAir™ 40/40A suspensions manufactured March 19, 2001 and later (the spring clip caps on these chassis are marked with an "X").
 - **Hendrickson part number 45745-127** — For MaxAir™ 40/40A suspensions manufactured prior to March 19, 2001.

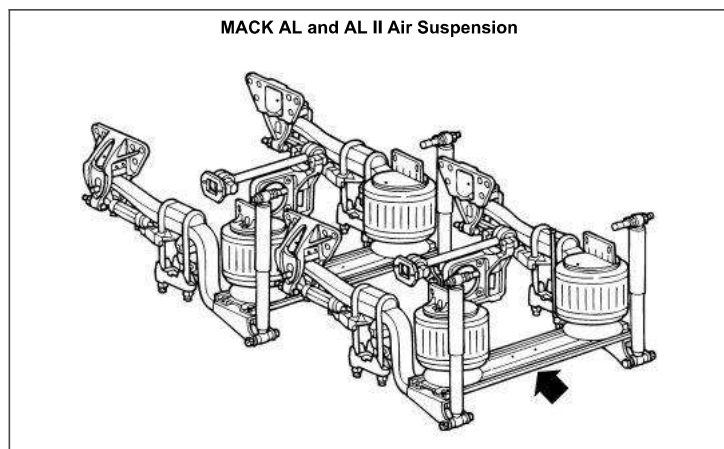
Both of the above gauges are available from Hendrickson Truck Suspension Systems and can be ordered by calling the Hendrickson Technical Center at 630-910-2800.

MaxAir™ 40/40A Rear Air Suspension Ride Height Gauges



- **Service Manual** – For ride height measurement and adjustment procedures, along with all other service information, refer to the MaxAir™ 40/40A Air Suspension Service and Repair Manual, 14-102.

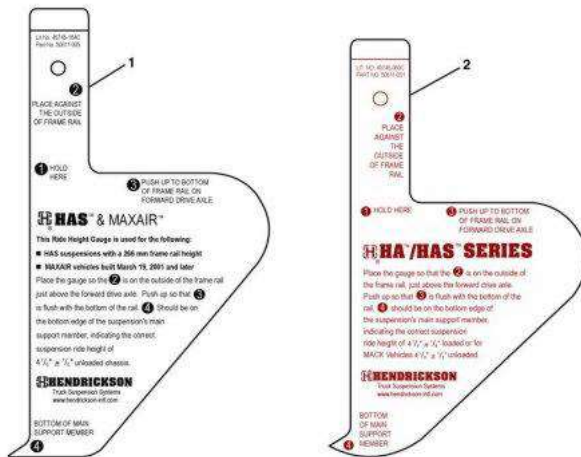
MACK AL and AL II Air Suspension



- **Suspension Model Designation and Usage** – The MACK AL and AL II air suspensions are used on CXU, CXP, CXN, CHU, CHN, CX, CH, GU7, GU8, CV, CTP, CT, TD, CL and RD model chassis equipped with either MACK, ArvinMeritor™ or Eaton rear axles.
 - **Unique Identifying Feature** – The MACK AL and AL II suspensions utilize a cross channel/tube between the air bags.
 - **Ride Height Specification** – Ride height specifications are as follows:
 - AL II (AL231, AL401, AL401LH and AL461) used with CXU, CXP, CXN, CHU and CHN models having 266 mm (10.47") frame rails and MACK, ArvinMeritor™ or Eaton axles — 123.83 mm (4-7/8")
 - AL, AL II, AL231, AL401LH and AL461 used with all CX, CH, CV, CT, CL and RD models equipped with MACK, ArvinMeritor™ and Eaton axles, and CXU, CXP, CXN, CHU, CHN, GU7, GU8, CTP, CT and TD models having 300 mm (11.81") frame rails and MACK axles — 107.95 mm (4-1/4")
- Note: Frame rail height is measured from the top of the upper flange to the bottom of the lower flange.*
- **Ride Height Gauge part number and Ordering Information** – Part numbers for the AL and AL II ride height gauges are as follows:
 - **Hendrickson part number 45745-164C** — For CXU, CXP, CXN, CHU and CHN models having AL II (AL401, AL401LH and AL461) suspensions, 266 mm (10.47") frame rails and MACK axles
 - **Hendrickson part number 45745-050C** — For CX, CH, CV, CL and RD model chassis having AL, or AL II suspensions and MACK, ArvinMeritor™ or Eaton axles, and CXU, CXP, CXN, CHU, CHN, GU7, GU8, CTP, CT and TD model chassis having AL II suspensions, 300 mm (11.81") frame rails and MACK axles

The above ride height gauges are available directly from Hendrickson Truck Suspension Systems and can be ordered by calling the Hendrickson Technical Center at 630-910-2800.

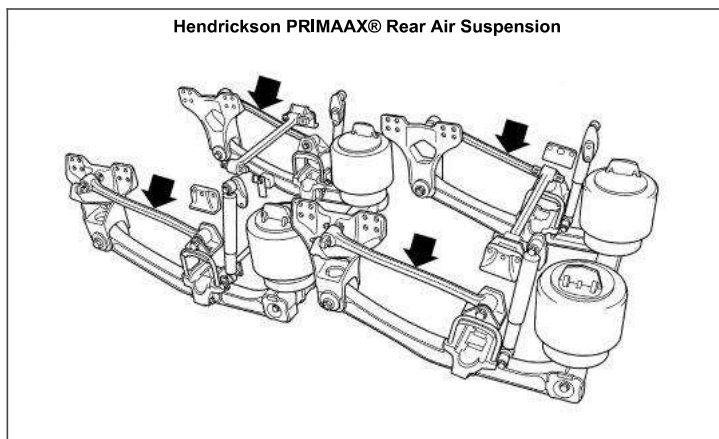
MACK AL and AL II Air Suspension Ride Height Gauges



1. Gauge part number 45745-164C, for CXN, CHN with 266 MM Frame Rail Height
 2. Gauge part number 45745-050C, for CX, CH, CV, CT, CL and RD, and also for CXN, CHN with 300 MM Frame Rail Height

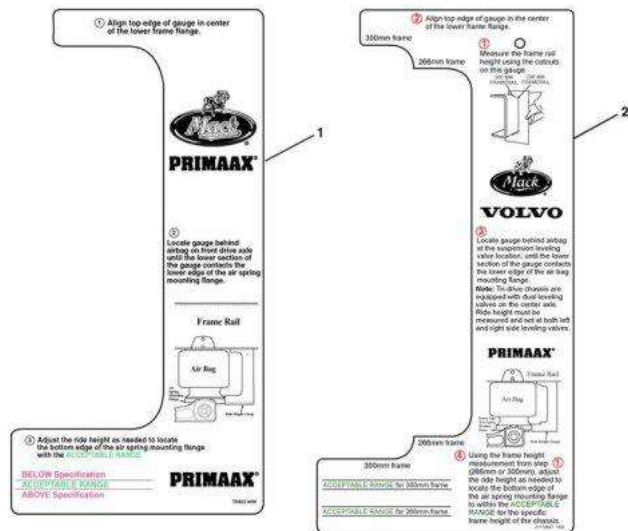
- **Service Manual** – For ride height measurement and adjustment procedures, along with all other service information, refer to the MACK AL and AL II Air Suspension Service and Repair Manual, 14–101.

Hendrickson PRIMAAX® Rear Air Suspension



- **Suspension Model Designation and Usage** – Hendrickson PRIMAAX® rear air suspension is used on CXU, CXP, CXN, CHU, CHN, GU7, GU8, TD, CTP, CT, CV, MRU and MR model chassis equipped with ArvinMeritor™ and Eaton rear axles.
- **Unique Identifying Feature** – The unique identifying feature of the Hendrickson PRIMAAX® rear air suspension is the dual outboard longitudinal (fore and aft) torque rods.
- **Ride Height Specification** – Measured from the lower frame flange to the bottom of the air bag mounting base. Dimensions per frame rail height are as follows:
 - 300 mm frame height — 350 mm (13-3/4")
 - 266 mm frame height — 366.25 mm (14-27/64")
- **Ride Height Gauge part number and Ordering Information** – Use ride height gauge part number 21170897. This gauge can be ordered through the MACK Parts System.

Hendrickson PRIMAAX® Ride Height Gauge

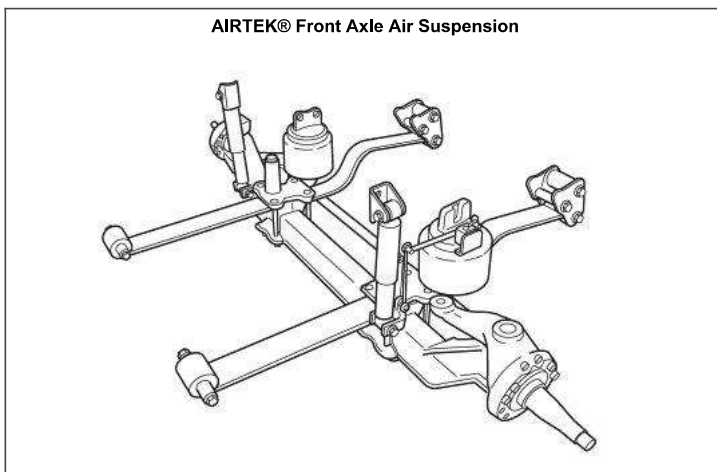


1. Gauge part number TS922 8/06, for Hendrickson® PRIMAAX®, 300 MM Frame Rail Height Only, Gauge no Longer Available, Replaced By Gauge No. 21170897
2. Gauge part number 21170897, for Hendrickson® PRIMAAX®, 266 MM and 300 MM Frame Rail Heights, Replaces Gauge No. TS922 9/06

- **Service Manual** – For ride height measurement and adjustment procedures, along with all other service information, refer to the MACK® PRIMAAX® Rear Air Suspension Service Manual, 14–107, or the Hendrickson Technical Procedure Manual, PRIMAAX® Service Instructions, publication No. 17730-238. The MACK manual can be ordered on-line by visiting the Service Publications section on the Mack Trucks web site at www.macktrucks.com. Dealers can order the manual by visiting the Trucks Dealer Portal, or by faxing a completed BR313 Requisition Form to Pacesetters Business Services at 610-264-9465. The Hendrickson manual can be downloaded from the Hendrickson website at www.hendrickson-intl.com, or by calling the Hendrickson Technical Center at 630-910- 2800.

Note: The previous gauge (part number TS922 8/06) is no longer available and has been replaced by gauge No. 21170897. Any TS922 8/06 in your tool inventory should be discarded and replaced with the new gauge.

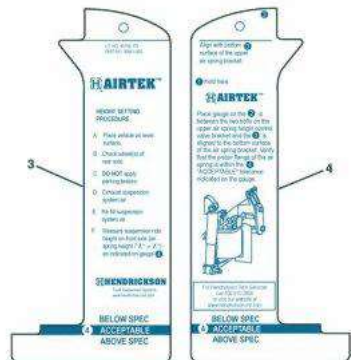
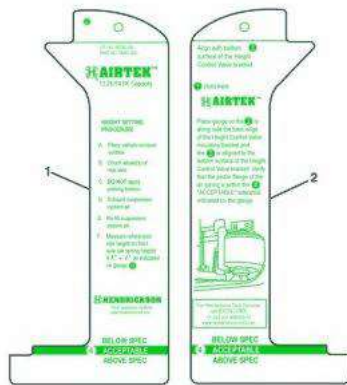
AIRTEK® Front Axle Air Suspension



- **Suspension Model Designation and Usage** – AIRTEK® front steer axle air suspension used on CXN model chassis with 12.0 K or 14.6 K front axles.
- **Unique Identifying Feature** – Air suspension used on front axles (refer to figure above).
- **Ride Height Specification** – Ride height specifications for AIRTEK® front air suspensions are as follows:
 - CXU, CXP and CXN models with 12.0 K front axle and AIRTEK® front suspension: 200.03 mm (7-7/8")
 - CXU, CXP and CXN models with 14.6 K front axle and AIRTEK® front suspension: 206.50 mm (8-1/8")
- **Ride Height Gauge part number and Ordering Information** – Ride height gauge part numbers are as follows:
 - Hendrickson part number 45745-170— CXU, CXP and CXN models with 12.0 K front axle and AIRTEK® suspension
 - Hendrickson part number 45745-195 — CXU, CXP and CXN models with 14.6 K front axle and AIRTEK® suspension

The above ride height gauges are available directly from Hendrickson Truck Suspension Systems and can be ordered by calling the Hendrickson Technical Center at 630-910- 2800.

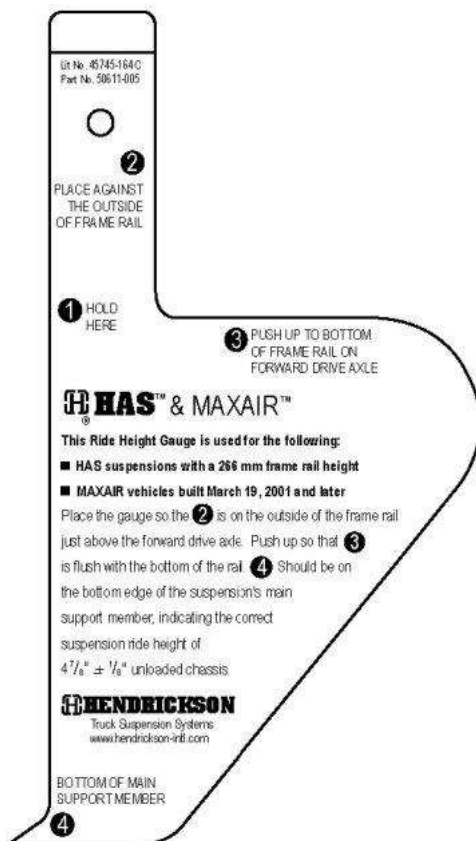
Hendrickson AIRTEK® Front Suspension Ride Height Gauges



1. Gauge part number 45745-195, Front, for CXU, CXP, CXN
2. Back of Gauge (45745-195)
3. Gauge part number 45745-170, Front, for CXU, CXP, CXN
4. Back of Gauge (45745-170)

- **Service Manual** –For ride height measurement and adjustment procedures, along with all other service information, refer to the Technical Procedure Manual, AIRTEK® Service Instructions, publication No. 17730-247. The above manual is available directly from Hendrickson Truck Suspension Systems, and can be ordered by calling the Hendrickson Technical Center at 630-910- 2800.

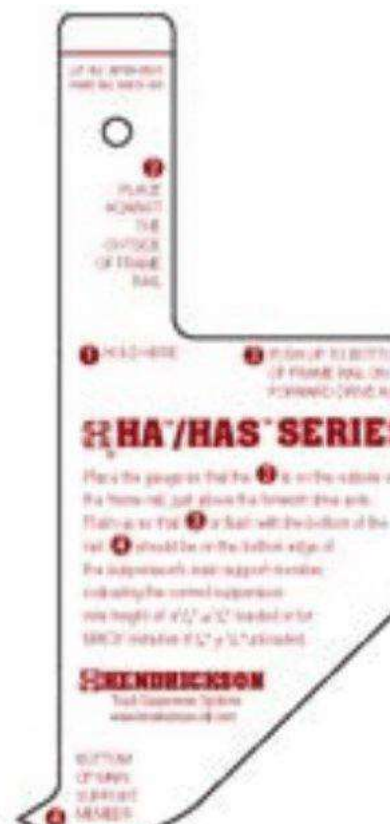
CXU, CXP, CXN, CHU, CHN AL II (AL401, AL401LH and AL461, or Hendrickson Designation HAS 40–60) 266 mm Frame Rails



Ride Height — 123.8 mm (4-7/8")

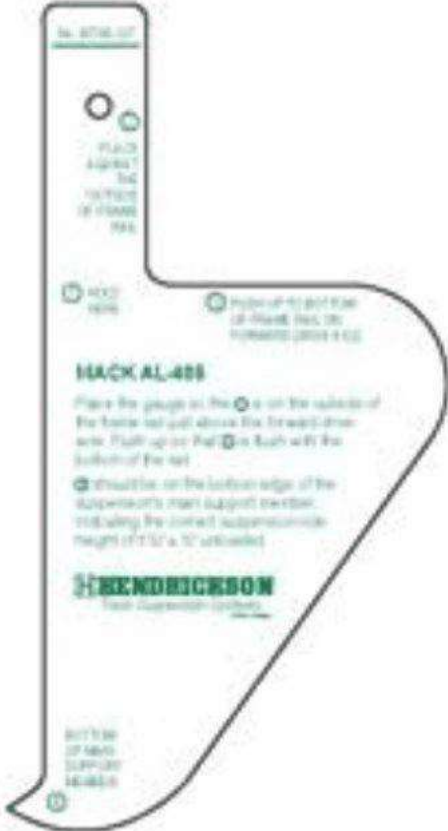
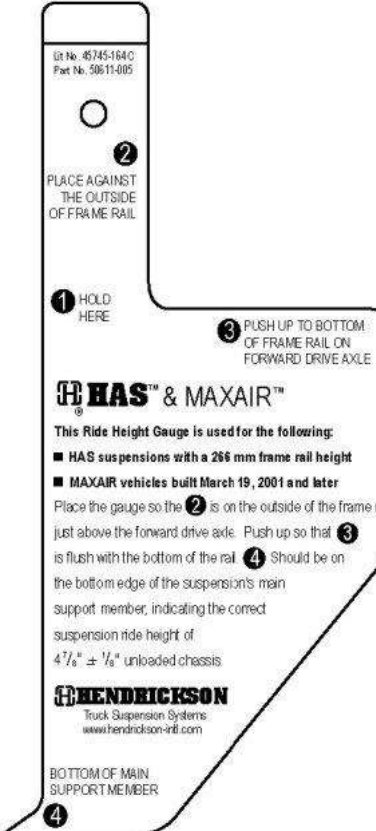
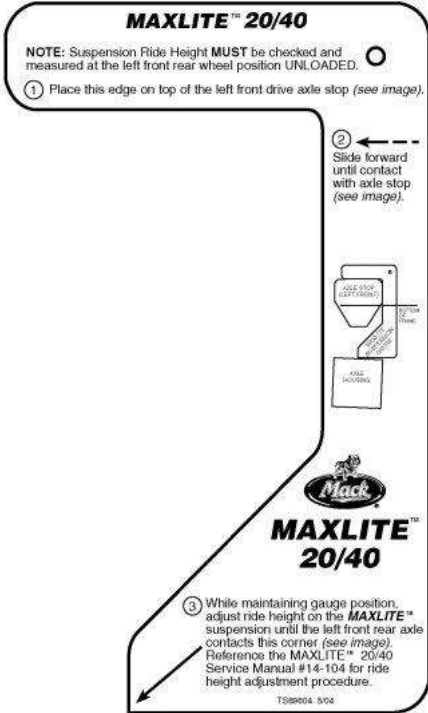
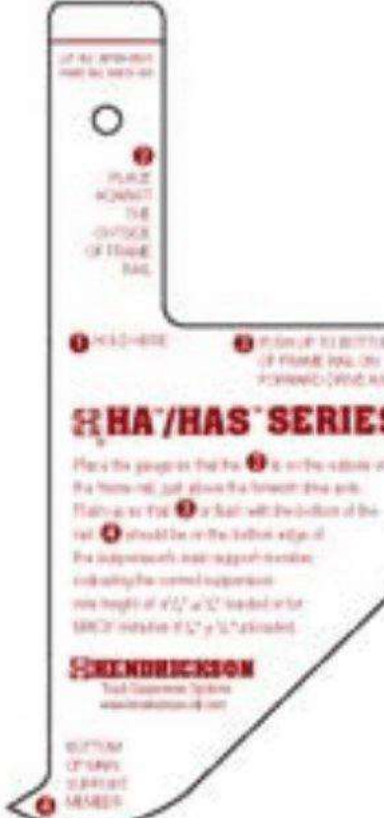
Gauge part number — 45745-164C

CXU, CXP, CXN, CHU, CHN, GU7, GU8, TD, CTP, CT AL II (AL401, AL401LH and AL461, or Hendrickson Designation HAS 40–60) 300 mm Frame Rails



Ride Height — 108 mm (4-1/4")

Gauge part number — 45745-050C

	Gauge Text Color — Black		Gauge Text Color — Red
CX, CH MaxAir™ 40/40A Prior to 03/10/02	 Ride Height — 133.4 mm (5-1/4") Gauge part number — 45745-127 Gauge Text Color — Green	CX, CH MaxAir™ 40/40A After 3/19/01	 Ride Height — 123.8 mm (4-7/8") Gauge part number — 45745-164C Gauge Text Color — Black
CXU, CXP, CXN, CHU, CHN MAXLITE™ 20-40 and MAXLITE™ 20-40 EZ	 Ride Height — 216 mm (8-1/2") Gauge part number — TS89604	CX, CH, CL, CV, RD AL, AL II (AL401, AL401LH, AL461 and AL231, or Hendrickson Designation HAS 40-46)	 Ride Height — 108 mm (4-1/4") Gauge part number — 45745-050C

	Gauge Text Color — Black		Gauge Text Color — Red
CXU, CXP, CXN AIRTEK® Front Axle Air Suspension 12,000 Lb. Front Axle	 Ride Height — 200 mm (7-7/8") Gauge part number — 45745-170 Gauge Text Color — Blue	CXU, CXP, CXN AIRTEK® Front Axle Air Suspension 14,600 Lb. Front Axle	 Ride Height — 206.5 mm (8-1/8") Gauge part number — 45745-195 Gauge Text Color — Green
CXU, CXP, CXN, CHU, CHN, GU7, GU8, CTP, CT, CV, MRU, MR PRIMAAX® Rear Air Suspension 300 mm Frame Height Only Tandem and Tri-Drive Rear Axles <i>Note: This gauge is no longer available and was replaced by gauge part number 21170897. Gauge part number TS922 8/06 should be discarded.</i>		CXU, CXP, CXN, CHU, CHN, GU7, GU8, TD, CTP, CT, CV, MRU, MR PRIMAAX® Rear Air Suspension 300 mm and 266 mm Frame Height Tandem and Tri-Drive Rear Axles	



Ride Height — 300 mm frame, 350 mm (13-3/4")

Gauge part number — TS922 8/06

Gauge Text Color — Multi-Color



Ride Height — 300 mm frame, 350 mm (13-3/4")

Ride Height — 266 mm frame, 366.3 mm (14-27/64")

Gauge part number — 21170897

Gauge Text Color — Multi-Color

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