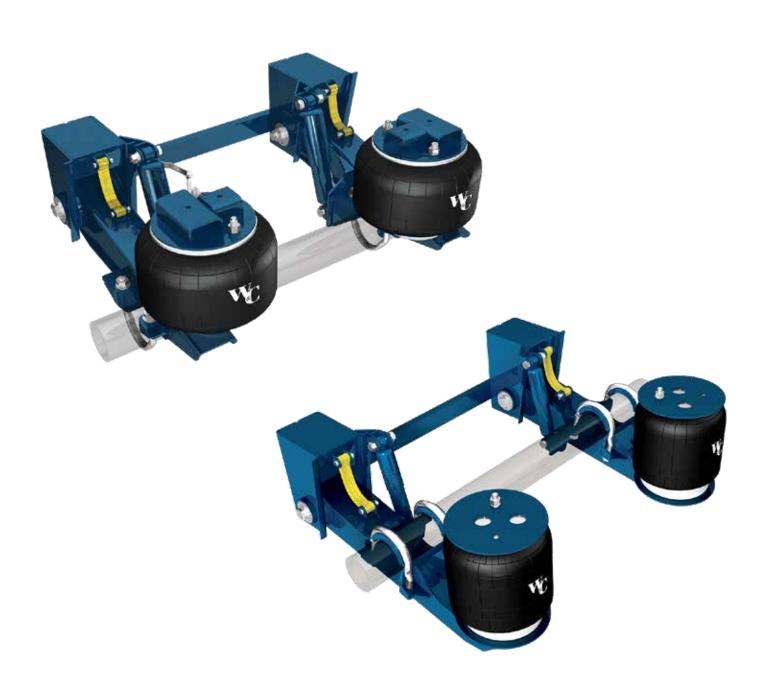


**LIT NO**: 97514-003

**DATE**: April 2022 **REVISION**: C





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#### **ABBREVIATIONS**

Abbreviations used in this document may include the following terms:

- AR As Required
- NA Not Available
- NSS Not Serviced Separately
- PCD Pitch Circle Diameter



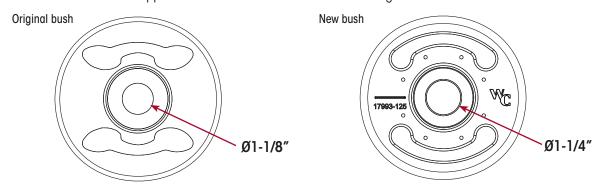
#### INTRODUCTION

The purpose of this parts list is to document the replacement repair parts available for TA series top mount (overslung) and underslung Watson and Chalin suspensions. Some bolt torque specifications have been included as a reference.

**NOTE**: All quantities listed within this parts list are as applicable for a single axle.

#### **PIVOT BUSH UPDATE**

Watson & Chalin updated the MULTIFUNCTION™ Pivot Bush in 2019 to a newer design. This new design has an increased internal sleeve diameter and is supplied with a liner to accommodate the larger sleeve diameter.



**Bush Comparison** 

The new bush has an inner sleeve diameter of 1-1/4 inch. A polyoxymethylene liner is to be fitted into the larger inner diameter bush to accommodate 1-1/8 inch bolts.

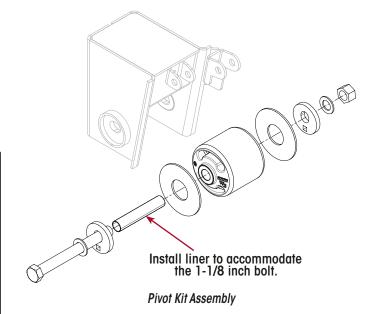
Applications in Australia require the fitment of the liner to accommodate the 1-1/8 inch pivot bolt.

The bush liner is included with both the TA Collar Pack kit (98591-014) and the bush replacement kit (98591-015). The updated bush is only available as part of the bush replacement kit, which also includes lubricant for bush installation.

#### NOTES:

It is recommended that both bushes on an axle are replaced at the same time and with the same bush design.

Service, inspection procedures and replacement requirements for the new bush is the same as for the previous bush design.

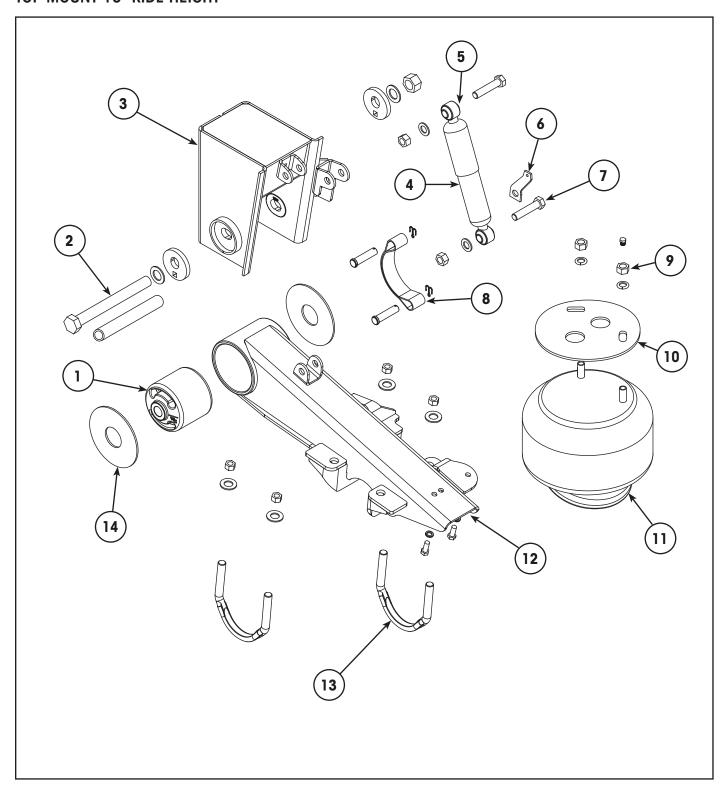


**CONTENTS:** The collar pack kit (98591-014) includes 4 x collars, 2 x bolts, 2 x nuts, 4 x wear washers, 4 x flat washers and 2 x sleeve liners. The bush replacement kit (98591-015) includes this collar kit along with 2 x multi-function bushes.



# WCTA250T-15

# **TOP MOUNT 15" RIDE HEIGHT**





# WCTA250T-15 - TOP MOUNT 15" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
	WCH0A1HWEA5A7NN1	Hanger Assembly LH	1	15 inch ride height.
3	WCH0A2HWEA5A7NN1	Hanger Assembly RH	1	15 inch ride height.
	WC19046-RFD	Shock Absorber Road Friendly	2	Road friendly.
4	WC17297	Shock Absorber Standard	2	Non-road friendly.
5	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
6	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts, nuts & washers.
8	WCTC-980155T.5	Rebound Strap Kit	1	Includes holding pins.
9	WCASKP013	Air Spring Hardware Kit	2	Includes bolts, washers & nuts.
10	WC50371	Air Spring Plate	2	
11	WCAS0098-01F	Air Spring	2	
10	WCTAARMZ-1.41	Trailing Arm LH TA250T20	1	Left hand. Includes bush.
12	WCTAARMZ-2.41	Trailing Arm RH TA250T20	1	Right hand. Includes bush.
13	WC16106	U-Bolt Kit Top Mount (Axle Set)	1	Includes washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

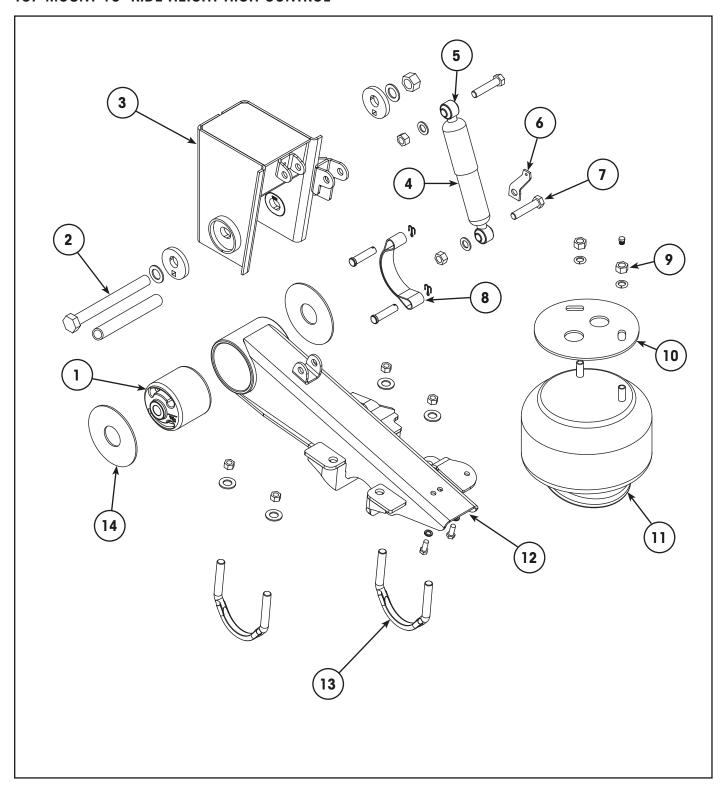
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper	3/4″-16	80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8"-12 UNF	1355 (1000)	
U-Bolts	7/8″-14 UNF	710 (525)	Grade 8

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# **WCTA250T-15HC**

# **TOP MOUNT 15" RIDE HEIGHT HIGH-CONTROL**





# WCTA250T-15HC - TOP MOUNT 15" RIDE HEIGHT HIGH-CONTROL

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update"</u> on page 3.
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1KWEC0C0NN1	Hanger Assembly LH	1	15 inch high-control.
٥	WCH0A2KWEC0C0NN1	Hanger Assembly RH	1	15 inch high-control.
_	WC19046-RFD	Shock Absorber Road Friendly	2	Road friendly.
4	WC17297	Shock Absorber Standard	2	Non-road friendly.
5	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
6	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts, nuts & washers.
8	WCTC-980155T.5	Rebound Strap Kit	1	Includes holding pins.
9	WCASKP013	Air Spring Hardware Kit	2	Includes bolts, washers & nuts.
10	WC50371	Air Spring Plate	2	
11	WCAS0107G	Air Spring	2	
10	WCTAARMZ-1.41	Trailing Arm LH TA250T20	1	Left hand. Includes bush.
12	WCTAARMZ-2.41	Trailing Arm RH TA250T20	1	Right hand. Includes bush.
13	WC16106	U-Bolt Kit Top Mount (Axle Set)	1	Includes washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

### **Torque Specifications**

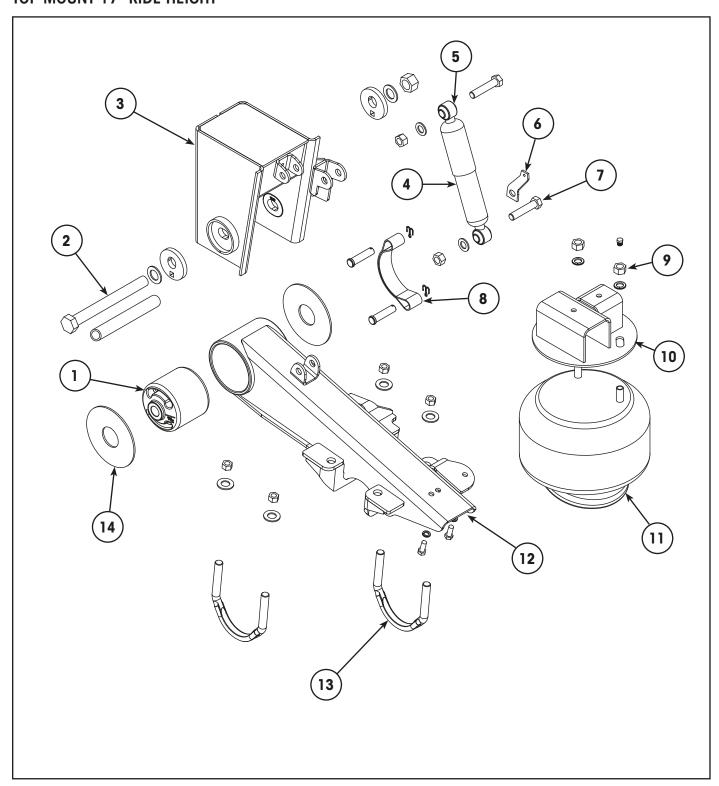
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper	3/4″-16	80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8"-12 UNF	1355 (1000)	
U-Bolts	7/8″-14 UNF	710 (525)	Grade 8

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# WCTA250T-17

# **TOP MOUNT 17" RIDE HEIGHT**





# WCTA250T-17 - TOP MOUNT 17" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1KWEC2C3NN1	Hanger Assembly LH	1	17 inch ride height.
S	WCH0A2KWEC2C3NN1	Hanger Assembly RH	1	17 inch ride height.
4	WC19046-RFD	Shock Absorber Road Friendly	2	Road friendly.
4	WC17297	Shock Absorber Standard	2	Non-road friendly.
5	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
6	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts, nuts & washers.
8	WCTC-980155T.5	Rebound Strap Kit	1	Includes holding pins.
9	WCASKP013	Air Spring Hardware Kit	2	Includes bolts, washers & nuts.
10	WC950294-11	Air Spring Plate LH	1	Left hand.
10	WC950294-21	Air Spring Plate RH	1	Right hand.
11	WCAS0107G	Air Spring	2	
10	WCTAARMZ-1.41	Trailing Arm LH TA250T20	1	Left hand. Includes bush.
12	WCTAARMZ-2.41	Trailing Arm RH TA250T20	1	Right hand. Includes bush.
13	WC16106	U-Bolt Kit Top Mount (Axle Set)	1	Includes washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

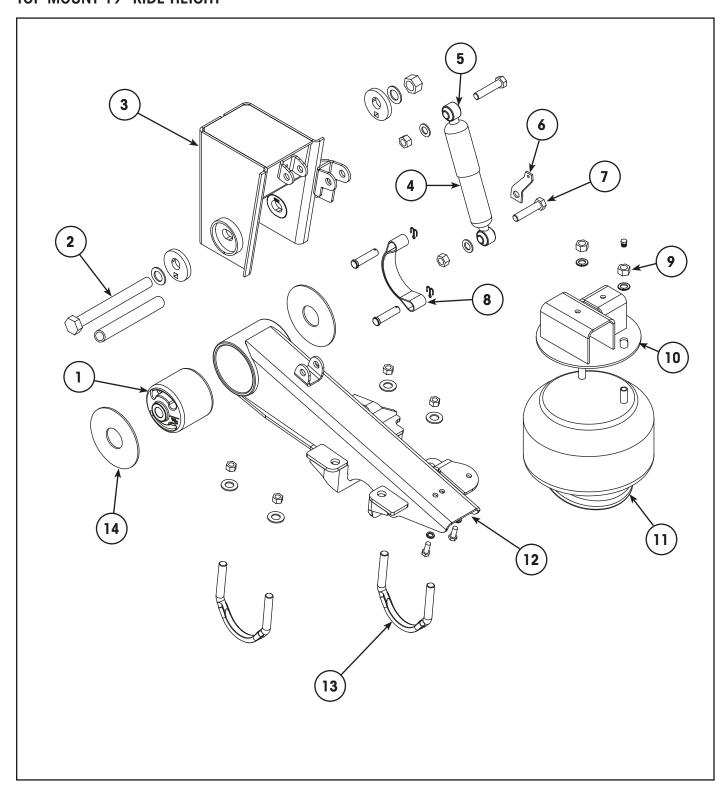
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper	3/4″-16	80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8"-12 UNF	1355 (1000)	
U-Bolts	7/8″-14 UNF	710 (525)	Grade 8

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# WCTA250T-19

# **TOP MOUNT 19" RIDE HEIGHT**





# WCTA250T-19 - TOP MOUNT 19" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1LWED6B0NN1	Hanger Assembly LH	1	19 inch ride height.
٥	WCH0A2LWED6B0NN1	Hanger Assembly RH	1	19 inch ride height.
	WC19046-RFD	Shock Absorber Road Friendly	2	Road friendly.
4	WC17297	Shock Absorber Standard	2	Non-road friendly.
5	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
6	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts, nuts & washers.
8	WCTC-980155T.5	Rebound Strap Kit	1	Includes holding pins.
9	WCASKP013	Air Spring Hardware Kit	2	Includes bolts, washers & nuts.
10	WC950294-14	Air Spring Plate LH	1	Left hand.
10	WC950294-24	Air Spring Plate RH	1	Right hand.
11	WCAS0107G	Air Spring	2	
10	WCTAARMZ-1.42	Trailing Arm LH TA250T20	1	Left hand. Includes bush.
12	WCTAARMZ-2.42	Trailing Arm RH TA250T20	1	Right hand. Includes bush.
13	WC16106	U-Bolt Kit Top Mount (Axle Set)	1	Includes washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

### **Torque Specifications**

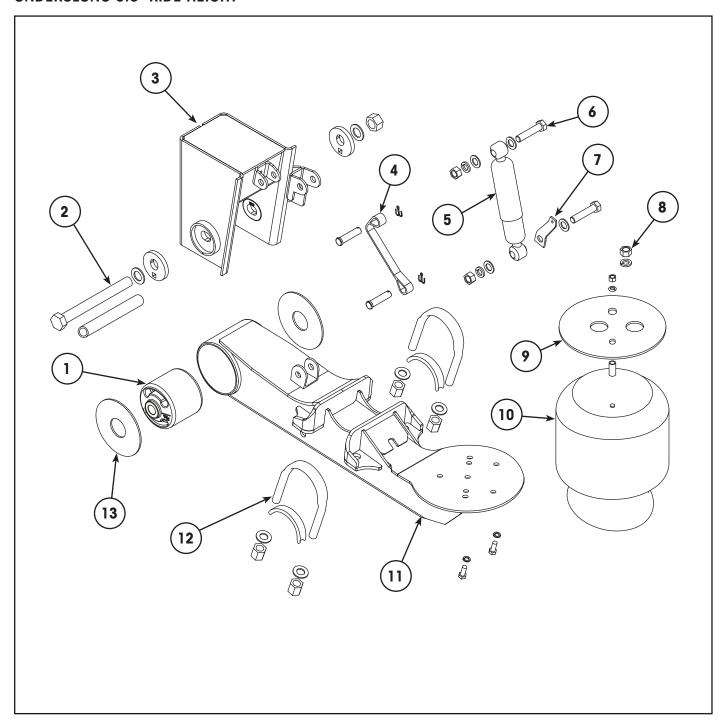
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper	3/4″-16	80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8"-12 UNF	1355 (1000)	
U-Bolts	7/8″-14 UNF	710 (525)	Grade 8

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# WCTA250U-6.5

### **UNDERSLUNG 6.5" RIDE HEIGHT**





# WCTA250U-6.5 - UNDERSLUNG 6.5" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 13), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1HWEA1A6NN1	Hanger Assembly LH	1	6.5 inch ride height.
٥	WCH0A2HWEA1A6NN1	Hanger Assembly RH	1	6.5 inch ride height.
4	WCTC-980155U.3	Rebound Strap Kit TA Series	1	Includes holding pins.
5	NA	Shock Absorber Road Friendly.	_	Road friendly.
5	WC17300	Shock Absorber Standard	2	Non-road friendly.
6	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts nuts & washers.
7	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
8	WCASKP012	Air Spring Hardware Kit	2	Includes bolts nuts & washers.
9	WC50632	Air Spring Plate	1	
10	WCAS0113C	Air Spring	2	
11	WCTAARMZ-1.45	Trailing Arm LH TA250U20	1	Left hand. Includes bush.
11	WCTAARMZ-2.45	Trailing Arm RH TA250U20	1	Right hand. Includes bush.
12	WC16104	U-Bolt Kit-TA250U Series	1	Includes spacers, washers & nuts.
13	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

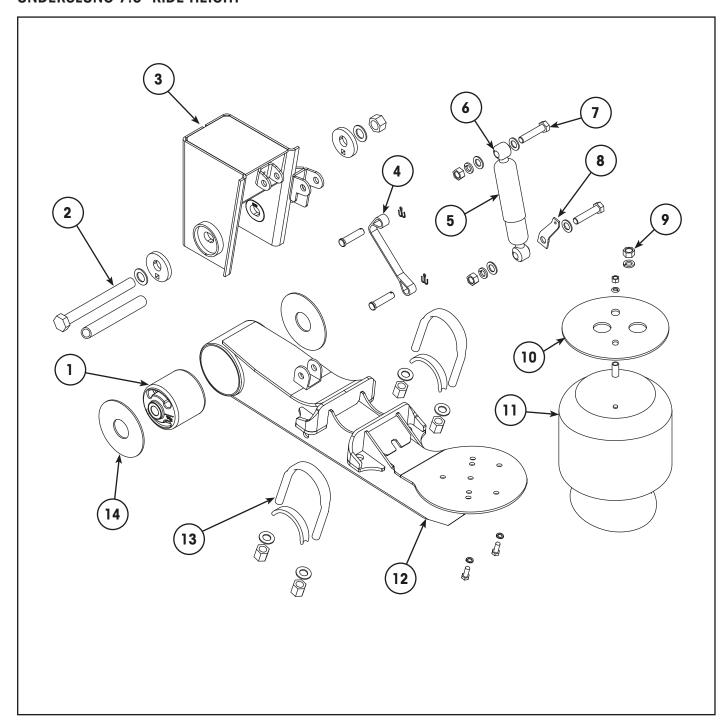
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper	3/4″-16	80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8″-12 UNF	1355 (1000)	
U-Bolts – 17.5"	7/8″-14 UNF	610 (450)	Grade 5
U-Bolts – 19.5 & 22.5"	7/8″-14 UNF	710 (525)	Grade 8

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# WCTA250U-7.5

### **UNDERSLUNG 7.5" RIDE HEIGHT**





# WCTA250U-7.5 - UNDERSLUNG 7.5" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1LWEA1A5NN1	Hanger Assembly LH	1	7.5 inch ride height.
٥	WCH0A2LWEA1A5NN1	Hanger Assembly RH	1	7.5 inch ride height.
4	WCTC-980155U.1	Rebound Strap Kit TA Series	1	Includes holding pins.
5	WC19046-RFD	Shock Absorber Road Friendly.	2	Road friendly.
٥	WC17297	Shock Absorber Standard	2	Non-road friendly.
6	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts nuts & washers.
8	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
9	WCASKP012	Air Spring Hardware Kit	2	Includes bolts nuts & washers.
10	WC50632	Air Spring Plate	1	
11	WCAS0061-1C	Air Spring	2	
10	WCTAARMZ-1.45	Trailing Arm LH TA250U20	1	Left hand. Includes bush.
12	WCTAARMZ-2.45	Trailing Arm RH TA250U20	1	Right hand. Includes bush.
13	WC16104	U-Bolt Kit-TA250U Series	1	Includes spacers, washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

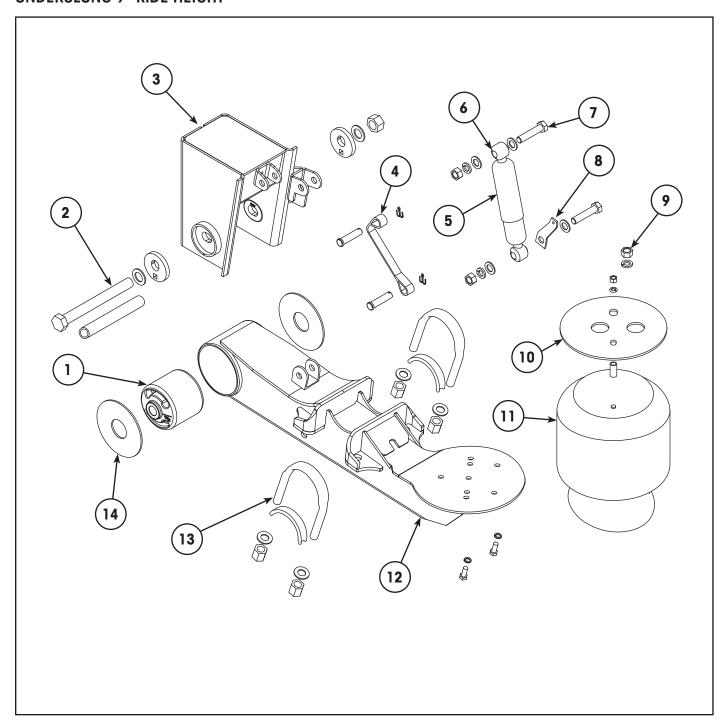
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper 3/4"-16		80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8″-12 UNF	1355 (1000)	
U-Bolts – 17.5"	7/8″-14 UNF	610 (450)	Grade 5
U-Bolts – 19.5 & 22.5" 7/8"-14 UNF		710 (525)	Grade 8

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# WCTA250U-9.0

# **UNDERSLUNG 9" RIDE HEIGHT**





# WCTA250U-9.0 - UNDERSLUNG 9" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1LWEA1A5NN1	Hanger Assembly LH	1	9 inch ride height.
٥	WCH0A2LWEA1A5NN1	Hanger Assembly RH	1	9 inch ride height.
4	WCTC-980155U.1	Rebound Strap Kit TA Series	1	Includes holding pins.
5	WC19046-RFD	Shock Absorber Road Friendly.	2	Road friendly.
٥	WC17297	Shock Absorber Standard	2	Non-road friendly.
6	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts nuts & washers.
8	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
9	WCASKP012	Air Spring Hardware Kit	2	Includes bolts nuts & washers.
10	WC50632	Air Spring Plate	1	
11	WCAS0061-1C	Air Spring	2	
12	WCTAARMZ-1.45	Trailing Arm LH TA250U20	1	Left hand. Includes bush.
12	WCTAARMZ-2.45	Trailing Arm RHTA250U20	1	Right hand. Includes bush.
13	WC16104	U-Bolt Kit-TA250U Series	1	Includes spacers, washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

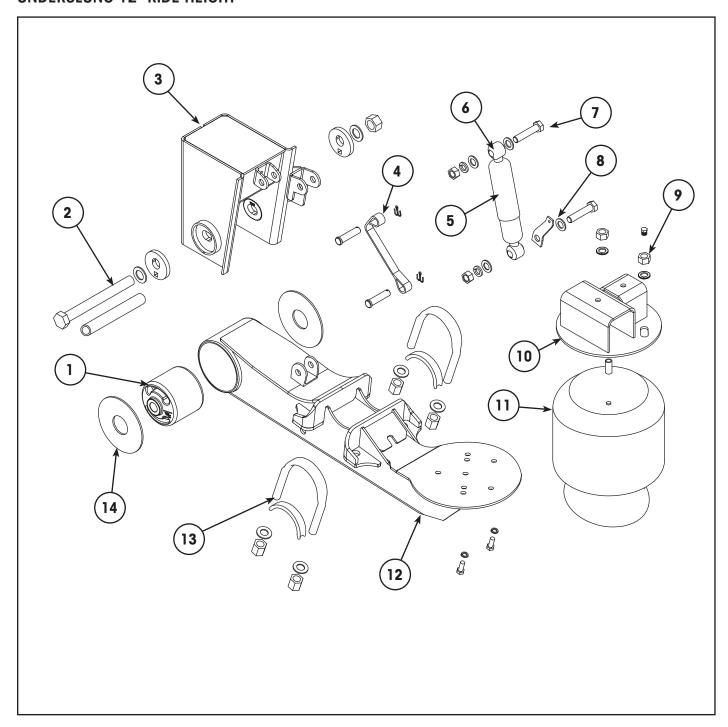
Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper 3/4"-16		80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8″-12 UNF	1355 (1000)	
U-Bolts – 17.5"	7/8″-14 UNF	610 (450)	Grade 5
U-Bolts – 19.5 & 22.5" 7/8"-14 UNF		710 (525)	Grade 8

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# WCTA250U-12

# **UNDERSLUNG 12" RIDE HEIGHT**





# WCTA250U-12 - UNDERSLUNG 12" RIDE HEIGHT

Item	Part Number	Description	Qty	Notes
1	98591-015	Bush Replacement Kit	1	Includes bushes, lubricant and collar pack kit. Refer <u>"Pivot Bush Update" on page 3</u> .
2	98591-014	TA Collar Pack	1	Includes wear washers (item 14), collars, liners, bolts, nuts & washers. Included as part of Item 1.
3	WCH0A1MWEB3C0NN1	Hanger Assembly LH	1	12 inch ride height.
٥	WCH0A2MWEB3C0NN1	Hanger Assembly RH	1	12 inch ride height.
4	WCTC-980155U.1	Rebound Strap Kit TA Series	1	Includes holding pins.
5	WC19046-RFD	Shock Absorber Road Friendly.	2	Road friendly.
3	WC17297	Shock Absorber Standard	2	Non-road friendly.
6	WCSRK19046-RFD	Bush Kit, Suits WC19046 Shock	2	Include 2 x bushes & 2 x sleeves.
7	WC16002-02	Shock Absorber Hardware Pack	2	Includes bolts nuts & washers.
8	WC30259	HCV Lower Bracket	1	Attached to lower shock absorber bolt.
9	WCASKP012	Air Spring Hardware Kit	2	Includes bolts nuts & washers.
10	WC950294-12	Air Spring Plate LH	1	Left hand.
10	WC950294-22	Air Spring Plate RH	1	Right hand.
11	WCAS0061-1C	Air Spring	2	
10	WCTAARMZ-1.45	Trailing Arm LH TA250U20	1	Left hand. Includes bush.
12	WCTAARMZ-2.45	Trailing Arm RH TA250U20	1	Right hand. Includes bush.
13	WC16104	U-Bolt Kit-TA250U Series	1	Includes spacers, washers & nuts.
14	B-11613-2P	Wear Washer, Tube Spacer	2	Pack of 2. Included as part of items 1 & 2.

# **Torque Specifications**

Description	Size	Torque Nm (lb.ft.)	Notes
Shock Bolts	3/4"-16 UNF	320 (235)	
Air Spring Nuts Upper 3/4"-16		80 (60)	
Air Spring Bolts Lower	1/2″-13	65 (50)	
Pivot Bolts	1 1/8″-12 UNF	1355 (1000)	
U-Bolts – 17.5"	7/8″-14 UNF	610 (450)	Grade 5
U-Bolts – 19.5 & 22.5" 7/8"-14 UNF		710 (525)	Grade 8

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#### **Revisions Table**

DATE	REV	PAGE	DESCRIPTION
Aug-2019	Α	All	Updated inclusive document to suit W&C TA Series axles, ECN 11574 & 11575.
Aug-2020	В	5,7,9,11,13,17,19	Add shock bush repair kit.
Sep-2020	В	15, 17, 19	Remove unused U-Bolt kit, update rebound strap kit, obsolete 14" RH, ECN 11771.
Apr-2022	С	All	Add wear washers and correct underslung drawings.
		_	

Actual product performance may vary depending upon vehicle configuration, operation, service and other factors.

All applications must comply with applicable Watson & Chalin specifications and must be approved by the respective vehicle manufacturer with the vehicle in its original, as-built configuration.

Contact Watson & Chalin for additional details regarding specifications, applications, capacities, and operation, service and maintenance instructions.

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