



9700 TWS



Trailer Suspension Series

Configurations & Parts Identification



Advancing the Practical Application of Suspension Technology

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Application

The 9700 Tandem Wide Spread (TWS) Series suspensions are designed to meet the needs of those who require a longer wheel base to better distribute trailer weight, and to keep the gross trailer weight or the weight of each individual axle within legal limits. A variety of hanger styles and axle configurations allow the 9700 TWS to be adapted to virtually any type of frame.

Capacity

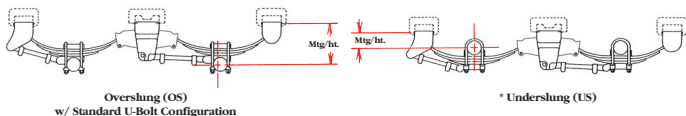
Heavy-duty three leaf or eight leaf springs are recommended for use with 9700 TWS suspensions. When equipped with these springs, the Gross Axle Weight Rating (G.A.W.R.) is 25,000 lbs./axle. When equipped with standard three leaf or seven leaf springs the G.A.W.R. is 22,400 lbs./axle.

Features

- ▶ A Huck "lockbolt" fastening system for the rocker/rocker hanger assembly that is virtually maintenance free.
- ▶ Lightweight, fabricated hangers and equalizers with 1/2" wear pads to reduce wear at all spring contact points.
- ▶ Cast steel hangers and equalizers with increased wall thickness at spring contact points...eliminating the need for additional wear pads.
- ▶ The industry's finest rocker bushing...combining a new rubber compound and improved bushing installation techniques, coupled with dimensional changes in the bushing and fasteners.
- ▶ A redesigned top plate that is lighter and offers greater stability under U-bolt clamp loads.
- ▶ Wrapped fabricated torque arm eye ends that utilize a single 5/8" bolt and a higher clamp load to prevent separation under extreme conditions.
- ▶ Torque arm screws that are coated with "NEVER-SEEZ™", and then painted to resist corrosion while allowing easy adjustment for suspension alignment.
- ▶ A multitude of mounting heights resulting from a variety of spring seat heights and suspension configurations.

Options

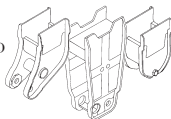
The 9700 TWS Series suspensions are, by definition, tandem axle units. However, multi-axle configurations - suspensions having more than two axles - are possible. A tri-axle suspension consists of a tandem axle kit plus a multi-axle conversion kit. Many such combinations are possible.



* Available on 54.5", 57.5", 61", 67", 73" and 81" models when utilizing Str/mt, Un/mt and Fl/mt hangers only. Available on 97", 109" and 121" models when utilizing Un/mt hangers only.

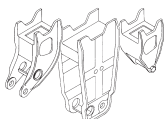
All 9700 Series suspensions are available with either fabricated or cast hangers. These hangers come in various styles. Please note that on all intermediate widespread suspensions the center rocker hanger is cast.

Fabricated (H)



Straddle Mount (Str/mt)

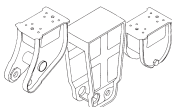
Straddle Mount Hangers are for use with box type frames. Each hanger straddles the frame and is welded to both sides of the frame. This is our strongest hanger mounting.



Cast (CH)

Under Mount (Un/mt)

Under Mount hangers are welded flush to the bottom of the frame. For an added weight savings in I-beam applications special fabricated front and rear hangers without top plates are available.



Fabricated (H)



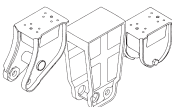
Cast (CH)

Under Mount Weld-on (Un/mt/wo) and Side Mount Weld-on (Si/mt/wo)

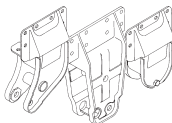
These versatile Weld-on hangers can be used for either under mount or side mount applications.

Side Mount (Si/mt)

Side Mount Hangers are welded to the side of the frame. They are useful on flatbed sliders and "maximum cube" vans.

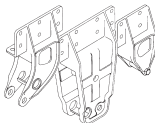


Fabricated (H)



Flange Mount (Fl/mt)

Flange Mount hangers are available with or without bolt holes. Hangers may be bolted (Fl/mt/bo) or welded (Fl/mt/wo) to the frame, or a combination of bolting and welding may be used.



Cast (CH)

(H)



(CH)

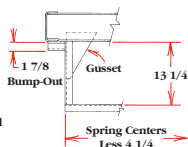


Hanger type beam guides
furnished by Hutchens

in lieu of



Recommended Material
3" Structural Channel

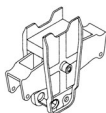


Fabricated beam guide furnished by installer
(Ref. Hutchens Drawing No. 11400)

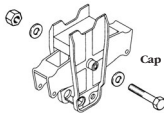
Note: Wear pads of UHMW Polymer are factory installed in the fabricated hanger type beam guides.

Beam guides are not a requirement on widespread units up to 60". From 60" up to 71", a single beam guide is required on the rear. From 72" on up, front and rear beam guides are required. The fabricated channel type beam guide (Ref. Hutchens Drawing No. 11400) is used on widespread axle spacings from 60" through 81". On the 72" to 81" spreads, this fabricated channel guide is used on the front and rear. From 97" on up, the front guide can either be the fabricated channel or hanger type, while the rear guide must be of the hanger type for torque arm attachment. If you should have any questions regarding beam guide usage and/or placement, please contact Hutchens for assistance. Hanger spacings for the various TWS units can be found with their appropriate isometric illustrations. Axle spacings of 54.5", 57.5", 61", 67", 73", 81", 109" and 121" will be covered in this section. For the availability of axle spacings not covered in this section, please contact Hutchens Industries.

As an option to the Huck fastener, a single cap screw fastener is available for the rocker and center rocker hanger. This system is also offered as a replacement for the Huck fastener should that become necessary.

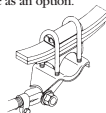
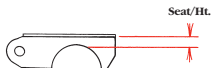


Huck Fastener (Std.)



Cap Screw (Opt.)

Spring seats and U-bolts to fit 5" round axles (shown below) are standard. These spring seats range in height from 3/4" to 4 3/4" in 1/2" increments. Spring seats and U-bolts for special axle shapes are available as an option.



No-Hop Attach Fitting
Rear Axle Only

A no-hop feature is available for rear axle application on overslung H and CH 9700 models with axle spacings of 54.5", 57.5", 61", 67", 73" and 81". The no-hop feature is standard on the overslung 9700 TWS units with axle spacings of 97", 109" and 121". This feature is designed to prevent rear axle rotation and the resulting "chatter" or "hop" that sometimes occurs when an empty trailer brakes hard. All overslung H and CH 9700 Series suspensions are available with optional 3/4" U-bolts in lieu of the standard 7/8" U-bolts. These model variations are standard catalog items. Many more combinations are possible. If your particular need is not covered in this publication, please contact Hutchens for assistance.

How To Order Your 9700 TWS Series Suspension System

With so many options available on the 9700 TWS Series suspensions, the basis of any order must begin with a complete description of the unit. The following procedure will provide the descriptive information required. (Note: A definition for any abbreviation listed may be found in the Options section of this booklet.)

1. Determine the number of axles required and the spacing of these axles. Unless otherwise specified, tandem axles are assumed.
2. Select the style of hangers required to mount the suspension on your particular frame or subframe. Specify whether these hangers are to be fabricated (H) or cast (CH) steel. With certain axle configurations some styles of hangers are not recommended; therefore, refer to the Options section of this booklet.
3. Determine the mounting height (Mtg/ht) your application requires. For your convenience, a Mounting Height Chart may be found on **Page 4** of this booklet. From this chart please note that mounting height is dependent upon:
 - a) Suspension configuration - Overslung or Underslung. Unless otherwise specified, suspension configuration is assumed to be overslung.
 - b) Axle size - 5" Round or other. (Hutchens does not manufacture or sell axles.)
 - c) Spring seat height - 3/4" to 4 3/4" in 1/2" increments.
 - d) Spring type - Standard or Heavy-Duty; number of leaves and spring arch. Hutchens is not a spring manufacturer. As a service to our customers we will supply springs upon request. Whether or not we provide you with springs, we will need to know what springs you intend to use to assure we furnish the appropriate U-bolt for the spring and spring seat combination you've ordered.
4. Choose which U-bolt size you would like (either the standard 7/8" or the optional 3/4" size).

Note: In many instances more than one combination will result in the same mounting height. Therefore, all of the aforementioned factors should be taken into consideration when ordering.

Example: A tandem axle (T) 9700 Series suspension with an axle spacing of 109" (WS - Wide Spread) requiring a mounting height of 17" and fabricated (H) straddlemount hangers (Str/mt) for use with 3/4" U-bolts and 5" round axles with 752-06 springs and forward beam guides would be ordered as follows:

Quantity	Fabricated Steel	Series No.	Tandem Widespread	Axle Spacing	Straddlemount Hangers	For use with 3/4" U-bolts	5" Round Axles	See Mtg/ht Chart	With 752-06 Springs	And forward beam guides
1 ea.	H	9700	TWS	109	Str/mt	3/4" U-bolts	5" rd.	3/4" seat	w/ 752-06 springs	and forward beam guides

1 ea. H9700 TWS - 109 - Str/mt - 3/4" U-bolts - 5" rd. - 3/4" seat - w/ 752-06 springs and forward beam guides

Example: A tandem axle (T) 9700 Series suspension with an axle spacing of 61" (WS - Wide Spread) requiring a mounting height of 6 1/4" and cast (CH) undermount hangers (Un/mt) in an underslung (US) configuration for use with 4" x 6" rectangular axles less 365-00 springs would be ordered as follows:

Quantity	Cast Steel	Series No.	Underslung Config.	Tandem Widespread	Axle Spacing	Undermount Hangers	4" x 6" Rect. Axles	Sec Mtg/ht Chart	Less 365-00 Springs
1 ea.	CH	9700	US	TWS	61	Un/mt	4" x 6" rect.	3/4" seat	L/ 365-00 springs
<i>1 ea. CH9700 US TWS - 61 - Un/mt - 4" x 6" rect. - 3/4" seat - L/ 365-00 springs</i>									

Mounting Height Chart: Nominal Values For No-Load Conditions 5" (127mm) Round Axles With 3/4" (19mm) Spring Seats

Spring Part No.	Description	GAWR (lbs.)	Over-slung Config.	Underslung Config.
			Tandem Axle 73" (1854mm) Axle Centers	Tandem Axle 73" (1854mm) Axle Centers
324-01	Hi-arch, 2-leaf	22,400	16" (406mm)	7 1/2" (191mm)
325-01	Med-arch, 2-leaf	22,400	14 1/2 (368)	6 (152) **
326-01	Low-arch, 2-leaf	22,400	13 1/2 (343)	5 1/2 (140) **
354-00	Hi-arch, 3-leaf	22,400	16 (406)	7 (178)
355-00	Med-arch, 3-leaf	22,400	14 1/4 (362)	5 1/2 (140) **
356-00	Low-arch, 3-leaf	22,400	13 3/4 (349)	4 1/2 (114) **
363-00	Low-arch, 1-leaf	22,400	13 3/4 (349)	5 3/4 (146) **
365-00	Hi-arch, 3-leaf H.D.	25,000	16 (406)	6 1/2 (165)
365-01	Low-arch, 3-leaf H.D.	25,000	13 3/4 (349)	4 1/4 (108) **
751-01	Low-arch, 7-leaf	22,400	NR	NR
751-05	Hi-arch, 7-leaf	22,400	NR	NR
751-06	Hi-arch, 7-leaf	22,400	16 1/4 (413)	6 1/8 (156)
752-01	Low-arch, 8-leaf H.D.	25,000	14 1/4 (362)	3 5/8 (92) **
752-05	Hi-arch, 8-leaf H.D.	25,000	NR	NR
752-06	Hi-arch, 8-leaf H.D.	25,000	16 3/4 (425)	6 1/8 (156)
16316-01	Low-arch, FRP H.D.*	24,000	14 1/2 (368)	4 1/2 (114) **
16710-01	Med-arch, 2-leaf, 2 stage	22,400	14 3/4 (375)	5 1/4 (133) **
17882-01	Med-arch, 2-leaf, 2 stage †	22,400	14 3/4 (375)	5 1/4 (133) **

* FRP mounting heights include additional 1/4" (6mm) for reinforced seats. ** Not to be used with 97", 109" and 121" underslung configurations. † Middle spring for multi-axle widespread.

Notes

- Mounting heights shown are for 73" axle spacings. For other spacings apply the following corrections: 54 1/2" - **subtract** 3/8" (10mm), 61" - **subtract** 1/4" (6mm), 67" - **subtract** 1/8" (3mm), 73" - shown above, 81" - **add** 1/8" (3mm), 97" - **add** 1/4" (6mm), 109" - **add** 1/2" (13mm), 121" - **add** 3/4" (19mm).
- Mounting heights given are for units with 5" (127mm) round axles and 3/4" (19mm) spring seats. Add 1/2" (13mm) to the mounting height shown for each 1/2" (13mm) increase in spring seat height.
- The mounting heights for 5" x 5" (127mm x 127mm) square axles are the same as those for 5" (127mm) round axles. To obtain the mounting heights for overslung 4" x 6" (102mm x 152mm) rectangular axles **add** 1/2" (13mm) to the appropriate 5" (127mm) round mounting height. For underslung 4" x 6" (102mm x 152mm) axles **subtract** 1/2" (13mm) from the appropriate 5" (127mm) round mounting height.
- Mounting heights shown are for Undermount, Sidemount and Flangemount hangers. Subtract 1/4" (6mm) for Straddle-mount hangers.
- Mounting heights shown are for fabricated hangers...springs unloaded.** These dimensions should be considered approximations due to spring tolerances, etc. Cast hangers produce slightly lower heights: 1/4" (6mm) / 3/8" (10mm).
- Mounting heights must not exceed 17 1/4" (438mm) on No-Hop suspensions. For best performance, do not exceed 17 1/4" (438mm) mounting heights on any suspension.
- It is recommended that a minimum of 4 1/2" (114mm) vertical clearance be maintained above the tires with trailer or chassis in an unloaded condition.

H and CH-9700 TWS 54.5" and 57.5"

Bill of Materials

Item	Part No.	Quantity Tandem	Axle	Description
1	See Chart A, Below	2		Front Spring Hanger
2	See Chart A, Below	2		Center Rocker/Rocker Hanger Assembly
3	See Chart A, Below	2		Rear Spring Hanger Assembly
4	719-02	8		Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"
5	715-00	1		Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curbside (RH) Only
6	10562-00	8		Flange Locknut - 1 - 14 UNS, GRE, Phosphate & Oil
7	See Chart C, Page 8	8		U-Bolt - Standard 7/8" U-Bolt (Shown)
8	16868-01	4		Top Plate
9	17350-02	4		Galvanized Liner ①
10	See Spring Appendix	4		Spring Assembly - Standard 3-Leaf (Shown)
11	See Chart B, Below	4		Spring Seat - 5" Round (Shown)
12	See Chart D, Page 8	4		Bottom Plate - 5" Round (Shown)
13	35-00 or 817-00	16		Washer - PL 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt Shown)
14	34-04 or 16303-01	16		Washer - 1/8" x 13/16 ID x 1 1/2 OD (For Optional 3/4" U-Bolt)
15	16398-04	1		Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt Shown)
16	16398-05	2		Hex Nut - 3/4" - 16 UNF (For Optional 3/4" U-Bolt)
17	16398-07	2		Adj. Radius Rod w/ Bushing - 19 1/4 LG, Front Roadside (LH) Only
18	See Chart E, Page 8	2		Adj. Radius Rod w/ Bushing - 20 1/4 LG, 54.5" Axle Spacing
19	See Chart E, Page 8	2		Adj. Radius Rod w/ Bushing - 22 1/4 LG, 57.5" Axle Spacing
20	See Chart E, Page 8	2		Spring Seat - Replaces Rear Spring Seat Only
21	See Chart E, Page 8	2		Attach Fitting - Replaces Rear Bottom Plate Only
22	See Chart E, Page 8	2		Adj. Radius Rod w/ Bushing - Replaces 2 Adj. Radius Rods on Rear Axle Only
23	7717-01	2 per Hanger		Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
24	722-00	2 per Rad. Rod		Radius Rod Bushing Only - 3" LG
25	37-03	2 per Rocker 1 per Rear Hgr.		Hex Lock Nut - 5/8" - 18 UNF, GRB (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
26	756-00	2 per Rocker 1 per Rear Hgr.		Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
27	759-00	2 per Rocker 1 per Rear Hgr.		Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
28	11154-00	1 per Rocker		Hex Lock Nut - 1 1/8" - 7 UNC, GR5
29	837-00	2 per Rocker		Washer - 1/8" x 1 1/4 ID x 2 1/4 OD
30	16160-01	2		Cast Rocker Assembly w/ Rubber Bushing - 54.5" Axle Spacing
31	17604-02	2		Fabricated Rocker Assembly w/ Rubber Bushing - 57.5" Axle Spacing
32	18723-01	1 per Rocker		Rocker Bushing Only - Rubber
33	16150-01	1 per Rocker		Hex Cap Screw - 1 1/8" x 7" x 6 5/8" LG, GR5

Chart A - Hanger: For Overslung and Underslung 54.5" and 57.5" Models

Description	Part No.	Str/mt	Un/mt	Unger Configuration	Un/mt (I-beam)	Si/mt	Fl/mt/wo	Fl/mt/bo
Front Hgr., Fab. (H)	7701-	-01	20728-01	16481-01	L 20729-01 R 20730-01	L 16291-03	L 702-09	L 702-11
Front Hgr., Cast (CH)		702-01	L 16291-03 R 16291-04	NA		R 16291-04	L 702-10	R 702-12
Rocker & Hgr. Assembly 54.5"	16449-	L-01 R-02	L-03 R-04	L-03 R-04	L-03 R-04	L-03 R-04	L-09 R-10	L-07 R-08
Rocker & Hgr. Assembly 57.5"	16450-	L-01 R-02	L-03 R-04	L-03 R-04	L-03 R-04	L-03 R-04	L-09 R-10	L-07 R-08
Rocker Hgr. Only, Cast (CH)		16180-01	16181-01	16181-01	16181-01	16181-01	L 16183-05 R 16183-06	L 16183-04 R 16183-04
54.5" & 57.5"								
Rear Hgr. Assy., Fab. (H)	7703-	-01	20732-01	16483-01	L-20733-01 R 20734-01	L-05 R-06	L 712-09	L 712-11
Rear Hgr. Assy., Cast (CH)		712-01	L 16293-01 R 16293-02	NA		R 16293-02	R 712-10	R 712-12

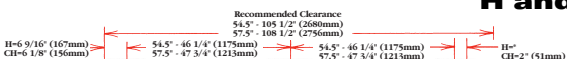
Chart B - Spring Seat

Seat Height	3/4"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
5" Round	19360-	-01	-02	-03	-04	-05	-06	-07	-08
5" x 5" Square	19365-	-01	-02	-03	-04	-05	-06	-07	-08
4" x 6" Rect.	19364-	-01	-02	-03	-04	-05	-06	-07	-08

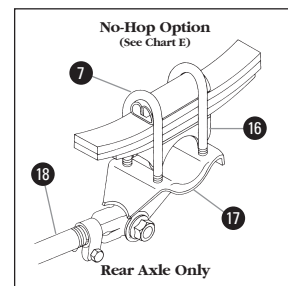
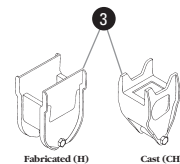
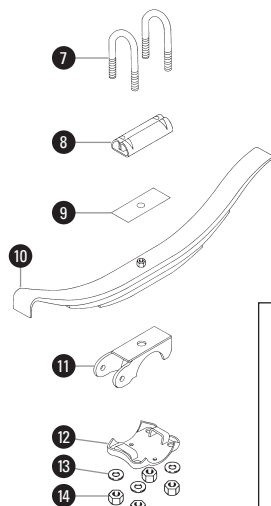
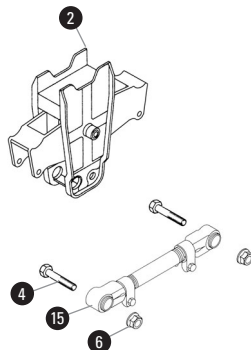
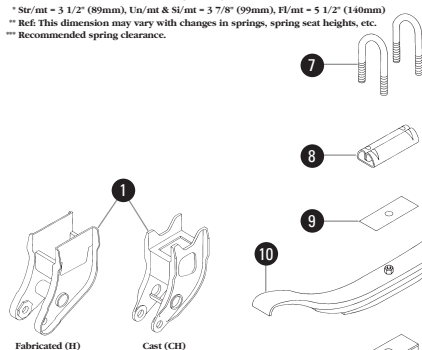
① Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



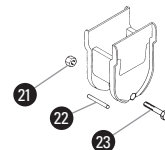
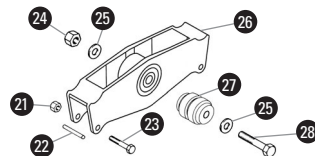
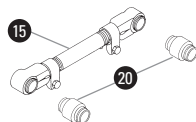
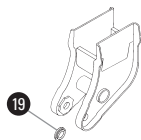
H and CH-9700 TWS 54.5" and 57.5"



* Str/mt = 3 1/2" (89mm), Un/mt & Sl/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)
 ** Ref. This dimension may vary with changes in springs, spring seat heights, etc.
 *** Recommended spring clearance.



Replacement Parts



H and CH-9700 TWS 54.5" and 57.5"

Chart C – U-Bolt

5" Round Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-06	9 3/4	-07	10 1/4	-08	10 3/4	-10	11 3/4	-11	12 1/4
1 1/4	-07	10 1/4	-08	10 3/4	-09	11 1/4	-11	12 1/4	-12	12 3/4
1 3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
2 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
2 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
3 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
3 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
4 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
4 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4

5" x 5" Square Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
2 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
3 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
3 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4
4 1/4	-15	14 1/4	-16	14 3/4	-17	15 1/4	-19	16 1/4	-20	16 3/4
4 3/4	-16	14 3/4	-17	15 1/4	-18	15 3/4	-20	16 3/4	-21	17 1/4

4" x 6" Rectangle Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
1 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
1 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
2 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
2 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4
3 1/4	-15	14 1/4	-16	14 3/4	-17	15 1/4	-19	16 1/4	-20	16 3/4
3 3/4	-16	14 3/4	-17	15 1/4	-18	15 3/4	-20	16 3/4	-21	17 1/4
4 1/4	-17	15 1/4	-18	15 3/4	-19	16 1/4	-21	17 1/4	-22	17 3/4
4 3/4	-18	15 3/4	-19	16 1/4	-20	16 3/4	-22	17 3/4	-23	18 1/4

Chart D – Bottom Plate

Axle Size	Part No.
5" Rd. w/ 7/8" Dia. U-Bolts	71000
5" Rd. w/ 3/4" Dia. U-Bolts	16297-01
5" x 5" Square	7747-01
4" x 6" Rect.	7746-00

Chart E – No-Hop Option

5" Round Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-06	9 3/4	-07	10 1/4	-08	10 3/4	-10	11 3/4	-11	12 1/4
1 1/4	-07	10 1/4	-08	10 3/4	-09	11 1/4	-11	12 1/4	-12	12 3/4
1 3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
2 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4

Axle Group										
Radius Rod										
Attach Fitting										
Seat	16398-See Below	(w/ Std. 7/8 Dia. U-Bolts)	(w/ Opt. 3/4 Dia. U-Bolts)							
Height	54.5"	57.5"								
3/4	-07	-08	10775-00	16308-01	22215-01					
1 1/4	-07	-08	10775-00	16308-01	22215-02					
1 3/4	-07	-08	10775-00	16308-01	22215-03					
2 1/4	-07	-08	10775-00	16308-01	22215-04					

5" x 5" Square Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

Axle Group										
Radius Rod										
Attach Fitting										
Seat	Radius Rod	Attach Fitting								
3/4	Contact	773801	22226-01							
1 1/4	Factory	773801	22226-02							
1 3/4	For	773801	22226-03							
2 1/4	Availability	773801	22226-04							

4" x 6" Rectangle Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf					
Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring	Length
3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
1 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
1 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
2 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4

Axle Group										
Radius Rod										
Attach Fitting										
Seat	Radius Rod	Attach Fitting								
3/4	Contact	773800	22228-01							
1 1/4	Factory	773800	22228-02							
1 3/4	For	773800	22228-03							
2 1/4	Availability	773800	22228-04							

*When using the 16710-01 2-stage spring, use the same length U-bolt as used with 365-00 and 365-01 springs.

**When using 365-00, 365-01 springs or 34-00 Hi-nuts, use 1/2" longer U-bolts.

H and CH-9700 US TWS 54.5" and 57.5"

Bill of Materials

Item	Part No.	Quantity Tandem Axle	Description
1	See Chart A, Below	2	Front Spring Hanger
2	See Chart A, Below	2	Center Rocker/Rocker Hanger Assembly
3	See Chart A, Below	2	Rear Spring Hanger Assembly
4	719-02	8	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"
5	715-00	1	Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curbside (RH) Only
6	10562-00	8	Flange Locknut - 1 - 14 UNS, GRF, Phosphate & Oil
7	See Chart F, Page 12	8	U-Bolt - Standard 7/8" U-Bolt
8	See Chart G, Page 12	4	Spring Seat - 5" Round (Shown)
9	17350-02	4	Galvanized Liner ①
10	See Spring Appendix	4	Spring Assembly - Standard 3-Leaf (Shown)
11	706-01	4	Bottom Plate Att.
12	35-00	16	Washer - PL, 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt)
13	34-04	16	Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt)
14	16398-04	1	Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Roadside (LH) Only
	16398-05	2	Adj. Radius Rod w/ Bushing - 20 1/4" LG, 54.5" Axle Spacing
	16398-07	2	Adj. Radius Rod w/ Bushing - 22 1/4" LG, 57.5" Axle Spacing
15	6786-00	4	U-Bolt Clamp - 4" x 6" Rect. Axle Only
16	7717-01	2 per Hanger	Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
17	722-00	2 per Rad. Rod	Radius Rod Bushing Only - 3" LG
18	37-03	2 per Rocker 1 per Rear Hgr.	Hex Lock Nut - 5/8" - 18 UNF, GRB (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
19	756-00	2 per Rocker 1 per Rear Hgr.	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
20	759-00	2 per Rocker 1 per Rear Hgr.	Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
21	11154-00	1 per Rocker	Hex Lock Nut - 1 1/8" - 7 UNC, GR5
22	837-00	2 per Rocker	Washer - 1/8" x 1 1/4 ID x 2 1/4 OD
23	16160-01	2	Cast Rocker Assembly w/ Rubber Bushing - 54.5" Axle Spacing
	17604-02	2	Fabricated Rocker Assembly w/ Rubber Bushing - 57.5" Axle Spacing
24	18723-01	1 per Rocker	Rocker Bushing Only - Rubber
25	16150-01	1 per Rocker	Hex Cap Screw - 1 1/8" x 7" x 6 5/8" LG, GR5

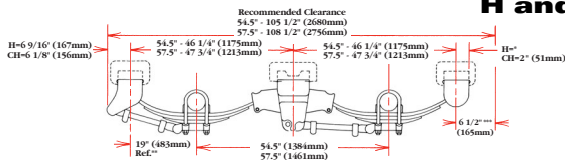
Chart A - Hanger: For Overslung and Underslung 54.5" and 57.5" Models

Description	Part No.	Str/mt	Un/mt	Hanger Configuration		Si/mt	Fl/mt/wo	Fl/mt/bo
				Un/mt (I-beam)				
Front Hgr., Fab. (H)	7701-	-01	20728-01	16481-01	L 20729-01 R 20730-01		L-05 R-06	L-07 R-08
Front Hgr., Cast (CH)		702-01	L 16291-03 R 16291-04	NA	L 16291-03 R 16291-04		L 702-09 R 702-10	L 702-11 R 702-12
Rocker & Hgr. Assembly 54.5"	16449-	L-01 R-02	L-03 R-04	L-03 R-04	L-03 R-04		L-09 R-10	L-07 R-08
Rocker & Hgr. Assembly 57.5"	16450-	L-01 R-02	L-03 R-04	L-03 R-04	L-03 R-04		L-09 R-10	L-07 R-08
Rocker Hgr. Only, Cast (CH)		16180-01	16181-01	16181-01	16181-01		L 16183-05 R 16183-06	L 16183-03 R 16183-04
Rear Hgr. Assy., Fab. (H)	7703-	-01	20732-01	16483-01	L-20733-01 R 20734-01		L-05 R-06	L-07 R-08
Rear Hgr. Assy., Cast (CH)		712-01	L 16293-01 R 16293-02	NA	L 16293-01 R 16293-02		L 712-09 R 712-10	L 712-11 R 712-12

① Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



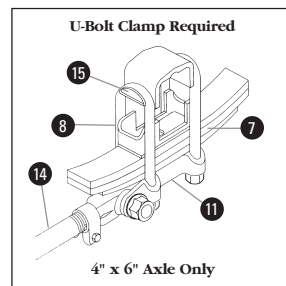
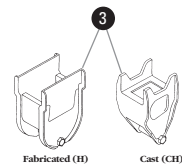
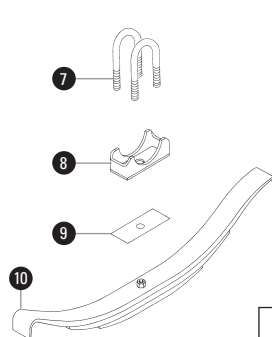
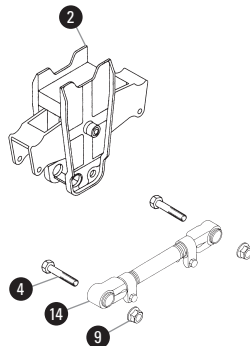
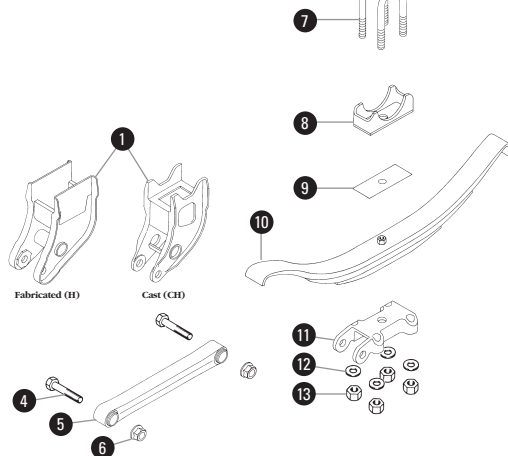
H and CH-9700 US TWS 54.5" and 57.5"



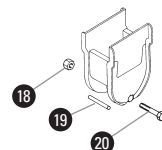
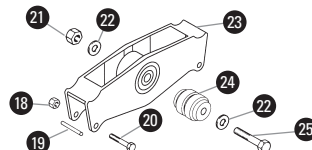
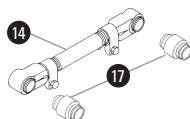
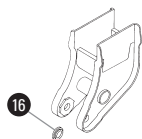
¹ Str/mt = 3 1/2" (89mm), Un/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)

² Ref: This dimension may vary with changes in springs, spring seat heights, etc.

³ Recommended spring clearance.



Replacement Parts



H and CH-9700 US TWS 54.5" and 57.5"

Chart F – U-Bolt

5" Round Axle										
U-Bolts										
7816 – See Below, Std. 7/8 Dia. x 5 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

5" x 5" Square Axle										
U-Bolts										
7840 – See Below, Std. 7/8 Dia. x 5 Sq. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-04	10 3/4	-05	11 1/4	-06	11 3/4	-08	12 3/4	-09	13 1/4
1 1/4	-05	11 1/4	-06	11 3/4	-07	12 1/4	-09	13 1/4	-10	13 3/4
1 3/4	-06	11 3/4	-07	12 1/4	-08	12 3/4	-10	13 3/4	-11	14 1/4
2 1/4	-07	12 1/4	-08	12 3/4	-09	13 1/4	-11	14 1/4	-12	14 3/4

4" x 6" Rectangle Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

Chart G – Spring Seat

Seat Height	3/4"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
5" Round	22215-	-01	-02	-03	-04	NR	—	—	—
5" x 5" Square	22226-	-01	-02	-03	-04	NR	—	—	—
4" x 6" Rect.	22228-	-01	-02	-03	-04	NR	—	—	—

* When using the 16710-01 2-stage spring, use the same length U-bolt as used with 365-00 and 365-01 springs.

** When using 365-00, 365-01 springs or 34-00 Hi-nuts, use 1/2" longer U-bolts.

H and CH-9700 TWS 61", 67", 73" and 81"

Bill of Materials

Item	Part No.	Quantity Tandem Axle	Description
1	See Chart J, Page 20	2	Front Spring Hanger
2	See Chart J, Page 20	2	Center Rocker/Rocker Hanger Assembly
3	See Chart J, Page 20	2	Rear Spring Hanger Assembly
4	719-02	8	Radius Rod Bolt - Hex Bolt - 1 - 14 UNF x 5"
5	715-00	1	Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curbside (RH) Only
6	10562-00	8	Flange Locknut - 1 - 14 UNF, GRE Phosphate & Oil
7	See Chart B, Page 16	8	U-Bolt - Standard 7/8" U-Bolt (Shown)
8	16868-01	4	Top Plate
9	17350-02	4	Galvanized Liner ^①
10	See Spring Appendix	4	Spring Assembly - Standard 3-Leaf (Shown)
11	See Chart B, Below	4	Spring Seat - 5" Round (Shown)
12	See Chart D, Page 16	4	Bottom Plate - 5" Round (Shown)
13	35-00 or 817-00	16	Washer - PL 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt Shown)
14	34-04 or 16303-01	16	Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt Shown)
15	16398-04	1	Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Roadside (LH) Only
	16398-08 or 16398-10 or 16398-12 or 16398-14	2	Adj. Radius Rod w/ Bushing - 23 1/2" LG, 61" Axle Spacing
		2	Adj. Radius Rod w/ Bushing - 26 1/2" LG, 67" Axle Spacing
		2	Adj. Radius Rod w/ Bushing - 29 1/4" LG, 73" Axle Spacing
		2	Adj. Radius Rod w/ Bushing - 33 1/2" LG, 81" Axle Spacing
16	See Chart H, Page 16	2	Spring Seat - Replaces Rear Spring Seat Only
17	See Chart H, Page 16	2	Attach Fitting - Replaces Rear Bottom Plate Only
18	See Chart H, Page 16	2	Adj. Radius Rod w/ Bushing - Replaces 2 Adj. Radius Rods on Rear Axle Only
19	7717-01	2 per Hanger	Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
20	722-00	2 per Rad. Rod	Radius Rod Bushing Only - 3" LG
21	37-03	2 per Rocker 1 per Rear Hgr.	Hex Lock Nut - 5/8" - 18 UNF GRB (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
22	756-00	2 per Rocker 1 per Rear Hgr.	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
23	759-00	2 per Rocker 1 per Rear Hgr.	Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger Assy. However it is part of the rear hanger Assy.)
24	11154-00	1 per Rocker	Hex Lock Nut - 1 1/8" - 7 UNC, GR5
25	837-00	2 per Rocker	Washer - 1/8" x 1 1/4 ID x 2 1/4 OD
26	16168-02 or 16168-03 or 16168-04 or 16168-07	2	Fabricated Rocker Assembly w/ Rubber Bushing, 61" Axle Spacing
		2	Fabricated Rocker Assembly w/ Rubber Bushing, 67" Axle Spacing
		2	Fabricated Rocker Assembly w/ Rubber Bushing, 73" Axle Spacing
		2	Fabricated Rocker Assembly w/ Rubber Bushing, 81" Axle Spacing
27	18723-01	1 per Rocker	Rocker Bushing Only - Rubber
28	16150-01	1 per Rocker	Hex Cap Screw - 1 1/8" x 7" x 6 5/8" LG, GR5

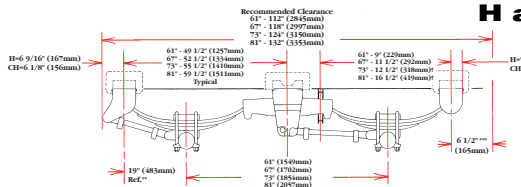
Chart B - Spring Seat

Seat Height	3/4"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
5" Round	19360-	-01	-02	-03	-04	-05	-06	-07	-08
5" x 5" Square	19365-	-01	-02	-03	-04	-05	-06	-07	-08
4" x 6" Rect.	19364-	-01	-02	-03	-04	-05	-06	-07	-08

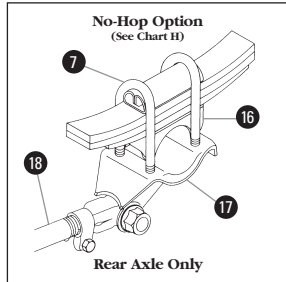
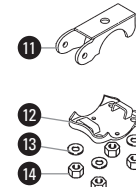
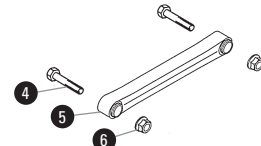
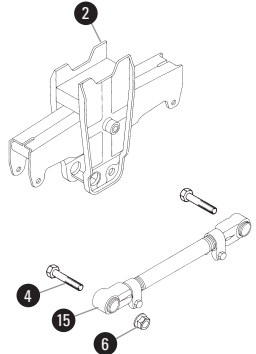
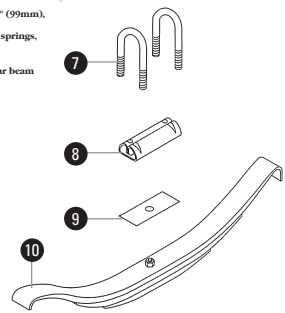
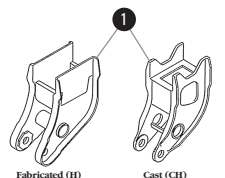
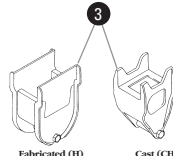
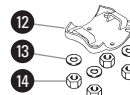
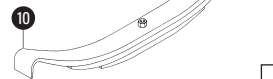
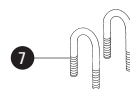
^① Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf) springs.



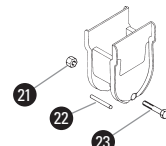
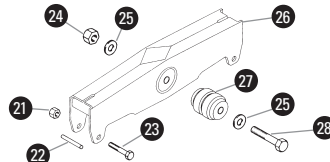
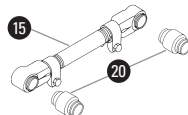
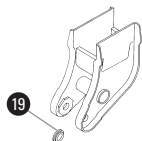
H and CH-9700 TWS 61", 67", 73" & 81"



* Str/mt = 3 1/2" (89mm), Un/mt & Sl/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)
 ** Ref: This dimension may vary with changes in springs, spring seat heights, etc.
 *** Recommended spring clearance.
 † On TWS 73" and 81" suspensions, front and rear beam guides are recommended.



Replacement Parts



H and CH-9700 TWS 61", 67", 73" and 81"

Chart C – U-Bolt

5" Round Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-06	9 3/4	-07	10 1/4	-08	10 3/4	-10	11 3/4	-11	12 1/4
1 1/4	-07	10 1/4	-08	10 3/4	-09	11 1/4	-11	12 1/4	-12	12 3/4
1 3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
2 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
2 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
3 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
3 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
4 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
4 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4

5" x 5" Square Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
2 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
3 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
3 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4
4 1/4	-15	14 1/4	-16	14 3/4	-17	15 1/4	-19	16 1/4	-20	16 3/4
4 3/4	-16	14 3/4	-17	15 1/4	-18	15 3/4	-20	16 3/4	-21	17 1/4

4" x 6" Rectangle Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
1 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
1 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
2 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4
2 3/4	-14	13 3/4	-15	14 1/4	-16	14 3/4	-18	15 3/4	-19	16 1/4
3 1/4	-15	14 1/4	-16	14 3/4	-17	15 1/4	-19	16 1/4	-20	16 3/4
3 3/4	-16	14 3/4	-17	15 1/4	-18	15 3/4	-20	16 3/4	-21	17 1/4
4 1/4	-17	15 1/4	-18	15 3/4	-19	16 1/4	-21	17 1/4	-22	17 3/4
4 3/4	-18	15 3/4	-19	16 1/4	-20	16 3/4	-22	17 3/4	-23	18 1/4

Chart D – Bottom Plate

Axle Size	Part No.
5" Rd. w/ 7/8" Dia. U-Bolts	710-00
5" Rd. w/ 3/4" Dia. U-Bolts	16297-01
5" x 5" Square	77-47-01
4" x 6" Rect.	77-46-00

Chart H – No-Hop Option

5" Round Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-06	9 3/4	-07	10 1/4	-08	10 3/4	-10	11 3/4	-11	12 1/4
1 1/4	-07	10 1/4	-08	10 3/4	-09	11 1/4	-11	12 1/4	-12	12 3/4
1 3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
2 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4

Axle Group

Spring Seat	Radius Rod 16398- See Below				Attach Fitting (7/8" Dia. U-Bolts)		(3/4" Dia. U-Bolts)		Spring Seat
	Height	61"	67"	73"	81"				
3/4	-09	-11	-13	-15	10775-00	16308-01	22215-01		
1 1/4	-09	-11	-13	-15	10775-00	16308-01	22215-02		
1 3/4	-09	-11	-13	-15	10775-00	16308-01	22215-03		
2 1/4	-09	NR	NR	NR	10775-00	16308-01	22215-04		

5" x 5" Square Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

Axle Group

Spring Seat	Radius Rod 16398- See Below				Attach Fitting		Spring Seat
	Height	61"	67"	73"	81"		
3/4		Contact				7738-01	22226-01
1 1/4		Factory				7738-01	22226-02
1 3/4		For				7738-01	22226-03
2 1/4		Availability				7738-01	22226-04

4" x 6" Rectangle Axle

U-Bolts

7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below

Seat	Single Leaf		Two Leaf		Three Leaf		Seven Leaf		Eight Leaf	
	Height	Spring	Length	Spring	Length	Spring	Length	Spring	Length	Spring
3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
1 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4
1 3/4	-12	12 3/4	-13	13 1/4	-14	13 3/4	-16	14 3/4	-17	15 1/4
2 1/4	-13	13 1/4	-14	13 3/4	-15	14 1/4	-17	15 1/4	-18	15 3/4

Axle Group

Spring Seat	Radius Rod 16398- See Below				Attach Fitting		Spring Seat
	Height	61"	67"	73"	81"		
3/4		Contact				7738-00	22228-01
1 1/4		Factory				7738-00	22228-02
1 3/4		For				7738-00	22228-03
2 1/4		Availability				7738-00	22228-04

* When using the 16710-01 2-stage spring, use the same length U-bolt as used with 365-00 and 365-01 springs.

** When using 365-00, 365-01 springs or 34-00 Hi-nuts, use 1/2" longer U-bolts.

H and CH-9700 US TWS 61", 67", 73" and 81"

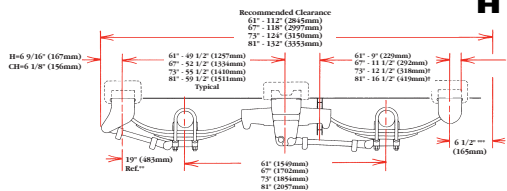
Bill of Materials

Item	Part No.	Quantity Tandem Axle	Description
1	See Chart J, Page 20	2	Front Spring Hanger
2	See Chart J, Page 20	2	Center Rocker/Rocker Hanger Assembly
3	See Chart J, Page 20	2	Rear Spring Hanger Assembly
4	719-02	8	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"
5	715-00	1	Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curbside (RH) Only
6	10562-00	8	Flange Locknut - 1 - 14 UNS, GRF Phosphate & Oil
7	See Chart F, Page 20	8	U-Bolt - Standard 7/8" U-Bolt
8	See Chart G, Page 20	4	Spring Seat - 5" Round (Shown)
9	17350-02	4	Galvanized Liner ①
10	See Spring Appendix	4	Spring Assembly - Standard 3-Leaf (Shown)
11	706-01	4	Bottom Plate Att.
12	35-00	16	Washer - PL, 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt)
13	34-04	16	Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt)
14	16398-04	1	Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Roadside (LH) Only
	16398-08 or	2	Adj. Radius Rod w/ Bushing - 23 1/2" LG, 61" Axle Spacing
	16398-10 or	2	Adj. Radius Rod w/ Bushing - 26 1/2" LG, 67" Axle Spacing
	16398-12 or	2	Adj. Radius Rod w/ Bushing - 29 1/4" LG, 73" Axle Spacing
	16398-14	2	Adj. Radius Rod w/ Bushing - 33 1/2" LG, 81" Axle Spacing
15	6786-00	4	U-Bolt Clamp - 4" x 6" Rect. Axle Only
16	7717-01	2 per Hanger	Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
17	722-00	2 per Rad. Rod	Radius Rod Bushing Only - 3" LG
18	37-03	2 per Rocker 1 per Rear Hgr.	Hex Lock Nut - 5/8" - 18 UNE GRB (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
19	756-00	2 per Rocker 1 per Rear Hgr.	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
20	759-00	2 per Rocker 1 per Rear Hgr.	Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
21	11154-00	1 per Rocker	Hex Lock Nut - 1 1/8" - 7 UNC, GR5
22	837-00	2 per Rocker	Washer - 1/8" x 1 1/4 OD x 2 1/4 OD
23	16168-02 or	2	Fabricated Rocker Assembly w/ Rubber Bushing, 61" Axle Spacing
	16168-03 or	2	Fabricated Rocker Assembly w/ Rubber Bushing, 67" Axle Spacing
	16168-04 or	2	Fabricated Rocker Assembly w/ Rubber Bushing, 73" Axle Spacing
	16168-07	2	Fabricated Rocker Assembly w/ Rubber Bushing, 81" Axle Spacing
24	18723-01	1 per Rocker	Rocker Bushing Only - Rubber
25	16150-01	1 per Rocker	Hex Cap Screw - 1 1/8" x 7" x 5/8" LG, GR5

① Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



H and CH-9700 US TWS 61", 67", 73" & 81"

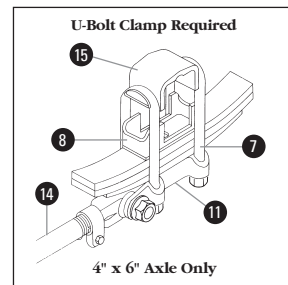
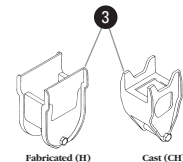
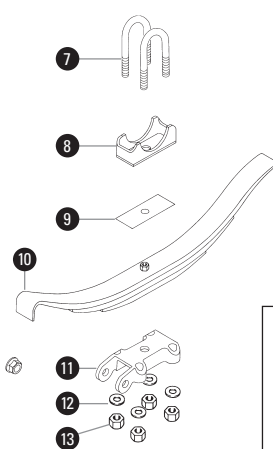
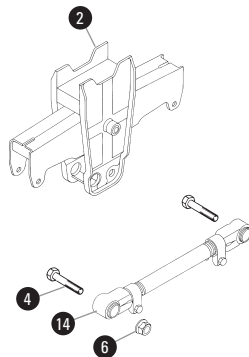
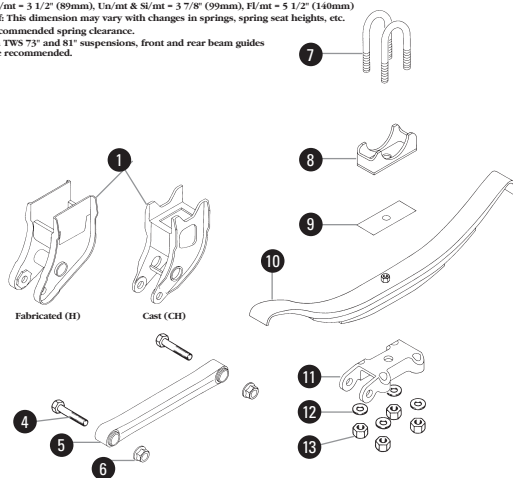


* Str/mt = 3 1/2" (89mm), Un/mt & Sl/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)

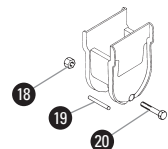
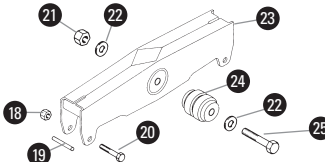
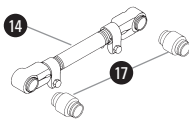
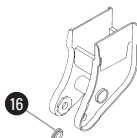
** Ref. This dimension may vary with changes in springs, spring seat heights, etc.

*** Recommended spring clearance.

† On TWS 73" and 81" suspensions, front and rear beam guides are recommended.



Replacement Parts



H and CH-9700 US TWS 61", 67", 73" and 81"

Chart F – U-Bolt

5" Round Axle										
U-Bolts										
7816 – See Below, Std. 7/8 Dia. x 5 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

5" x 5" Square Axle										
U-Bolts										
7840 – See Below, Std. 7/8 Dia. x 5 Sq. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-04	10 3/4	-05	11 1/4	-06	11 3/4	-08	12 3/4	-09	13 1/4
1 1/4	-05	11 1/4	-06	11 3/4	-07	12 1/4	-09	13 1/4	-10	13 3/4
1 3/4	-06	11 3/4	-07	12 1/4	-08	12 3/4	-10	13 3/4	-11	14 1/4
2 1/4	-07	12 1/4	-08	12 3/4	-09	13 1/4	-11	14 1/4	-12	14 3/4

4" x 6" Rectangle Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	-08	10 3/4	-09	11 1/4	-10	11 3/4	-12	12 3/4	-13	13 1/4
1 1/4	-09	11 1/4	-10	11 3/4	-11	12 1/4	-13	13 1/4	-14	13 3/4
1 3/4	-10	11 3/4	-11	12 1/4	-12	12 3/4	-14	13 3/4	-15	14 1/4
2 1/4	-11	12 1/4	-12	12 3/4	-13	13 1/4	-15	14 1/4	-16	14 3/4

Chart G – Spring Seat

Seat Height		3/4"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
5" Round	22215-	-01	-02	-03	-04	NR	—	—	—	—
5" x 5" Square	22226-	-01	-02	-03	-04	NR	—	—	—	—
4" x 6" Rect.	22228-	-01	-02	-03	-04	NR	—	—	—	—

Chart J – Hanger: For Overslung and Underslung 61", 67", 73" and 81" Models

Hanger Configuration										
Description	Part No.	Str/mt	Un/mt	Un/mt (I-beam)	Si/mt	Fl/mt/wo	Fl/mt/bo			
Front Hgr., Fab. (H)	7701-	-01	20728-01	16481-01	L 20729-01 R 20730-01	L 05 R 06	L 07 R 08			
Front Hgr., Cast (CH)		702-01	L 16291-03 R 16291-04	NA	L 16291-03 R 16291-04	L 702-09 R 702-10	L 702-11 R 702-12			
Rocker, Fab (H)	61" 16451-	L 01 R 02	L 03 R 04	L 03 R 04	L 03 R 04	L 09 R 10	L 07 R 08			
& Hgr., Cast (CH) Assembly	67" 16452-	L 01 R 02	L 03 R 04	L 03 R 04	L 03 R 04	L 09 R 10	L 07 R 08			
	73" 16453-	L 01 R 02	L 03 R 04	L 03 R 04	L 03 R 04	L 09 R 10	L 07 R 08			
	81" 16454-	L 01 R 02	L 03 R 04	L 03 R 04	L 03 R 04	L 09 R 10	L 07 R 08			
Rocker Hgr. Only, Cast (CH)		16180-01	16181-01	16181-01	16181-01	L 16183-05 R 16183-06	L 16183-03 R 16183-04			
Rear Hgr.Assy., Fab. (H)	7703-	-01	20732-01	16483-01	L 20733-01 R 20734-01	L 05 R 06	L 07 R 08			
Rear Hgr.Assy., Cast (CH)		712-01	L 16293-01 R 16293-02	NA	L 16293-01 R 16293-02	L 712-09 R 712-10	L 712-11 R 712-12			

*When using the 16710-01 2-stage spring, use the same length U-bolt as used with 365-00 and 365-01 springs.

**When using 365-00, 365-01 springs or 3/4-00 Hi-nuts, use 1/2" longer U-bolts.

H-9700 TWS 97", 109" and 121"

Bill of Materials

Item	Part No.	Quantity Tandem Axle	Description
1	See Chart M, Page 28	2	Front Spring Hanger
2	See Chart M, Page 28	2	Front Beam Guide - Optional
3	See Chart M, Page 28	2	Center Rocker/Rocker Hanger Assembly - Fabricated
4	See Chart M, Page 28	2	Rear Beam Guide Att.
5	See Chart M, Page 28	2	Rear Spring Hanger Assembly
6	719-02	8	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"
7	715-00	1	Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curb Side (RH) Only
8	10562-00	8	Flange Locknut - 1 - 14 UNS, GRE Phosphate & Oil
9	See Chart C, Page 24	8	U-Bolt - Standard 7/8" U-Bolt (Shown)
10	16868-01	4	Top Plate
11	17350-02	4	Galvanized Liner ①
12	See Spring Appendix	4	Spring Assembly - Standard 3-Leaf (Shown)
13	See Chart B, Below	4	Spring Seat - 5" Round (Shown)
14	See Chart D, Page 24	4	Bottom Plate - 5" Round (Shown)
15	35-00 or 817-00	16 16	Washer - PL, 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt Shown) Washer - 1/8" x 13/16 ID x 1 1/2 OD (For Optional 3/4" U-Bolt)
16	34-04 or 16303-01	16 16	Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt Shown) Hex Nut - 3/4" - 16 UNF (For Optional 3/4" U-Bolt)
17	16398-04	1	Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Roadside (LH) Only
		2	Rear Both Sides (LH and RH) When Using 5" Round Axles
	16398-17	2	Adj. Radius Rod w/ Bushing - 17 LG Adj. To 17 1/4, Rear Both Sides (LH and RH) When Using 5" x 5" Square or 4" x 6" Rect. Axles
18	See Chart K, Page 24	2	Spring Seat - 5" Round (Shown)
19	See Chart K, Page 24	2	Attach Fitting
20	7717-01	2 per Hanger	Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
21	722-00	2 per Rad. Rod	Radius Rod Bushing Only - 3" LG
22	37-03	2 per Rocker 1 per Rear Hgr.	Hex Lock Nut - 5/8" - 18 UNE GRB (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
23	756-00	2 per Rocker 1 per Rear Hgr.	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
24	759-00	2 per Rocker 1 per Rear Hgr.	Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
25	11154-00	1 per Rocker	Hex Lock Nut - 1 1/8" - 7 UNC, GR5
26	837-00	2 per Rocker	Washer - 1/8" x 1 1/4 OD x 2 1/4 OD
27	18723-01	1 per Rocker	Rocker Bushing Only - Rubber
28	16150-01	1 per Rocker	Hex Cap Screw - 1 1/8" x 7" x 6 5/8" LG, GR5
29	16168-09 or 16168-10 or 16168-13	2 2 2	Fabricated Rocker Assembly w/ Rubber Bushing, 97" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 109" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 121" Axle Spacing

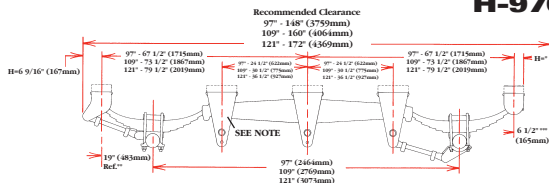
Chart B - Spring Seat

Seat Height	3/4"	1 1/4"	1 3/4"	2 1/4"	2 3/4"	3 1/4"	3 3/4"	4 1/4"	4 3/4"
5" Round	19360-.01	.02	.03	.04	.05	.06	.07	.08	.09
5" x 5" Square	19365-.01	.02	.03	.04	.05	.06	.07	.08	.09
4" x 6" Rect.	19364-.01	.02	.03	.04	.05	.06	.07	.08	.09

① Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf) springs.



H-9700 TWS 97", 109" & 121"



* Str/mt = 3 1/2" (89mm), Un/mt & Si/mt = 3 7/8" (99mm), FI/mt = 5 1/2" (140mm)

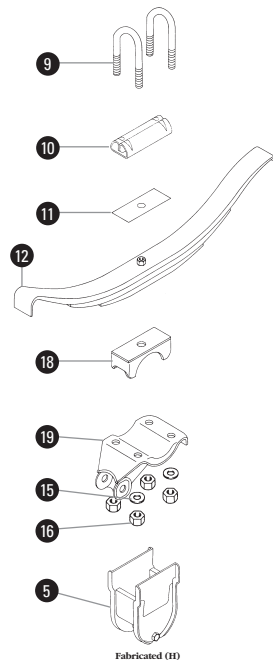
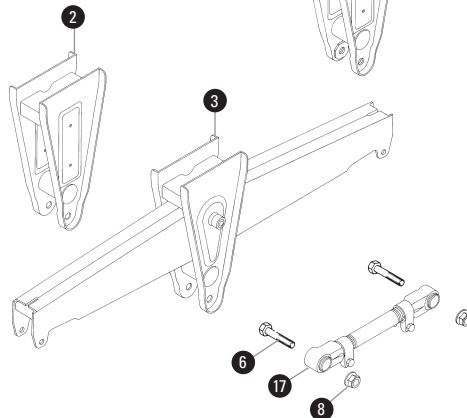
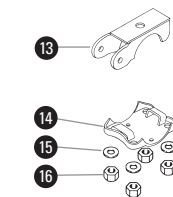
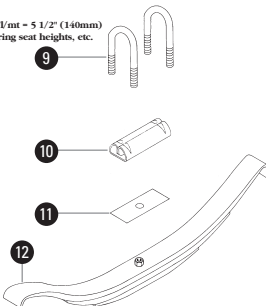
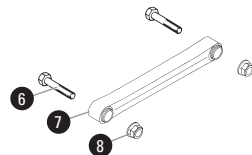
** Ref: This dimension may vary with changes in springs, spring seat heights, etc.

*** Recommended spring clearance.

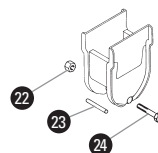
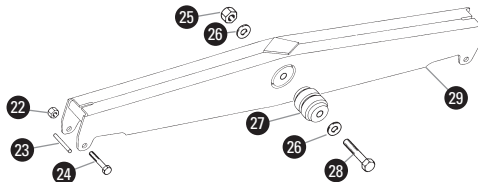
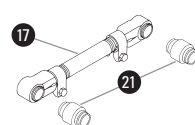
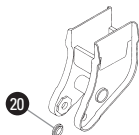
Note: Optional forward beam guide may be used in lieu of fabricated beam guide furnished by installer.



Fabricated (H)



Replacement Parts



H-9700 TWS 97", 109" and 121"

Chart C – U-Bolt

5" Round Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	406	9 3/4	407	10 1/4	408	10 3/4	-10	11 3/4	-11	12 1/4	-12
1 1/4	407	10 1/4	408	10 3/4	409	11 1/4	-11	12 1/4	-12	12 3/4	-13
1 3/4	408	10 3/4	409	11 1/4	410	11 3/4	-12	12 3/4	-13	13 1/4	-14
2 1/4	409	11 1/4	410	11 3/4	411	12 1/4	-13	13 1/4	-14	13 3/4	-15
2 3/4	410	11 3/4	411	12 1/4	412	12 3/4	-14	13 3/4	-15	14 1/4	-16
3 1/4	411	12 1/4	412	12 3/4	413	13 1/4	-15	14 1/4	-16	14 3/4	-17
3 3/4	412	12 3/4	413	13 1/4	414	13 3/4	-16	14 3/4	-17	15 1/4	-18
4 1/4	413	13 1/4	414	13 3/4	415	14 1/4	-17	15 1/4	-18	15 3/4	-19
4 3/4	414	13 3/4	415	14 1/4	416	14 3/4	-18	15 3/4	-19	16 1/4	-20

5" x 5" Square Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	408	10 3/4	409	11 1/4	410	11 3/4	-12	12 3/4	-13	13 1/4	-14
1 1/4	409	11 1/4	410	11 3/4	411	12 1/4	-13	13 1/4	-14	13 3/4	-15
1 3/4	410	11 3/4	411	12 1/4	412	12 3/4	-14	13 3/4	-15	14 1/4	-16
2 1/4	411	12 1/4	412	12 3/4	413	13 1/4	-15	14 1/4	-16	14 3/4	-17
2 3/4	412	12 3/4	413	13 1/4	414	13 3/4	-16	14 3/4	-17	15 1/4	-18
3 1/4	413	13 1/4	414	13 3/4	415	14 1/4	-17	15 1/4	-18	15 3/4	-19
3 3/4	414	13 3/4	415	14 1/4	416	14 3/4	-18	15 3/4	-19	16 1/4	-20
4 1/4	415	14 1/4	416	14 3/4	417	15 1/4	-19	16 1/4	-20	16 3/4	-21
4 3/4	416	14 3/4	417	15 1/4	418	15 3/4	-20	16 3/4	-21	17 1/4	-22

4" x 6" Rectangle Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	410	11 3/4	411	12 1/4	412	12 3/4	-14	13 3/4	-15	14 1/4	-16
1 1/4	411	12 1/4	412	12 3/4	413	13 1/4	-15	14 1/4	-16	14 3/4	-17
1 3/4	412	12 3/4	413	13 1/4	414	13 3/4	-16	14 3/4	-17	15 1/4	-18
2 1/4	413	13 1/4	414	13 3/4	415	14 1/4	-17	15 1/4	-18	15 3/4	-19
2 3/4	414	13 3/4	415	14 1/4	416	14 3/4	-18	15 3/4	-19	16 1/4	-20
3 1/4	415	14 1/4	416	14 3/4	417	15 1/4	-19	16 1/4	-20	16 3/4	-21
3 3/4	416	14 3/4	417	15 1/4	418	15 3/4	-20	16 3/4	-21	17 1/4	-22
4 1/4	417	15 1/4	418	15 3/4	419	16 1/4	-21	17 1/4	-22	17 3/4	-23
4 3/4	418	15 3/4	419	16 1/4	420	16 3/4	-22	17 3/4	-23	18 1/4	-24

Chart D – Bottom Plate

Axle Size	Part No.
5" Rd. w/ 7/8" Dia. U-Bolts	71000
5" Rd. w/ 3/4" Dia. U-Bolts	16297-01
5" x 5" Square	7747-01
4" x 6" Rect.	7746-00

Chart K

5" Round Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
16300 – See Below, Opt. 3/4 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	406	9 3/4	407	10 1/4	408	10 3/4	-10	11 3/4	-11	12 1/4	-12
1 1/4	407	10 1/4	408	10 3/4	409	11 1/4	-11	12 1/4	-12	12 3/4	-13
1 3/4	408	10 3/4	409	11 1/4	410	11 3/4	-12	12 3/4	-13	13 1/4	-14
2 1/4	409	11 1/4	410	11 3/4	411	12 1/4	-13	13 1/4	-14	13 3/4	-15

5" x 5" Square Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	408	10 3/4	409	11 1/4	410	11 3/4	-12	12 3/4	-13	13 1/4	-14
1 1/4	409	11 1/4	410	11 3/4	411	12 1/4	-13	13 1/4	-14	13 3/4	-15
1 3/4	410	11 3/4	411	12 1/4	412	12 3/4	-14	13 3/4	-15	14 1/4	-16
2 1/4	411	12 1/4	412	12 3/4	413	13 1/4	-15	14 1/4	-16	14 3/4	-17

4" x 6" Rectangle Axle											
U-Bolts											
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below											
Seat Height	Single Leaf	Two Leaf	Three Leaf	Seven Leaf	Eight Leaf	Length	Spring	Length	Spring	Length	Spring
3/4	410	11 3/4	411	12 1/4	412	12 3/4	-14	13 3/4	-15	14 1/4	-16
1 1/4	411	12 1/4	412	12 3/4	413	13 1/4	-15	14 1/4	-16	14 3/4	-17
1 3/4	412	12 3/4	413	13 1/4	414	13 3/4	-16	14 3/4	-17	15 1/4	-18
2 1/4	413	13 1/4	414	13 3/4	415	14 1/4	-17	15 1/4	-18	15 3/4	-19

Axle Group											
Seat Height	Radius Rod	Attach Fitting	Seat								
3/4	1699804	7738-00	22228-01								
1 1/4	1699804	7738-00	22228-02								
1 3/4	1699804	7738-00	22228-03								
2 1/4	1699804	7738-00	22228-04								

* When using the 16710-01 2-stage spring, use the same length U-bolt as used with 365-00 and 365-01 springs.

** When using 365-00, 365-01 springs or 34-00 Hi-nuts, use 1/2" longer U-bolts.

H and CH-9700 US TWS 97", 109" and 121"

Bill of Materials

Item	Part No.	Quantity Tandem Axle	Description
1	See Chart M, Page 28	2	Front Spring Hanger
2	See Chart M, Page 28	2	Front Beam Guide - Optional
3	See Chart M, Page 28	2	Center Rocker/Rocker Hanger Assembly
4	See Chart M, Page 28	2	Rear Beam Guide Att.
5	See Chart M, Page 28	2	Rear Spring Hanger Assembly
6	719-02	8	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"
7	715-00	1	Non-Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Curbside (RH) Only
8	10562-00	8	Flange Locknut - 1 - 14 UNS, GRE Phosphate & Oil
9	See Chart N, Page 28	8	U-Bolt - Standard 7/8" U-Bolt
10	See Chart L, Below	4	Spring Seat - 5" Round (Shown)
11	17350-02	4	Galvanized Liner ❶
12	See Spring Appendix	4	Spring Assembly - Hi-Arch Only ❷
13	706-01	4	Bottom Plate Att.
14	35-00	16	Washer - PL, 15/16 ID x 1 3/4 OD (For Std. 7/8" U-Bolt)
15	34-04	16	Hex Nut - 7/8" - 14 UNF (For Std. 7/8" U-Bolt)
16	16398-04	1	Adj. Radius Rod w/ Bushing - 19 1/4" LG, Front Roadside (LH) Only
		2	Rear Both Sides (LH and RH) When Using 5" Round Axles
	16398-17	2	Adj. Radius Rod w/ Bushing - 17 LG Adj. To 17 1/4, Rear Both Sides (LH and RH) When Using 5" x 5" Square or 4" x 6" Rect. Axles
17	7717-01	2 per Hanger	Washer Bushing - Replaces Sideplate Washer 10561-00 on Fabricated (H) Front and Center Hangers Only
18	722-00	2 per Rad. Rod	Radius Rod Bushing Only - 3" LG
19	37-03	2 per Rocker 1 per Rear Hgr.	Hex Lock Nut - 5/8" - 18 UNF GRB (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
20	756-00	2 per Rocker 1 per Rear Hgr.	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4 LG (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
21	759-00	2 per Rocker 1 per Rear Hgr.	Hex Bolt - 5/8" - 18 UNF x 4 1/2 LG, GR2 (Shipped loose, not part of center rocker & hanger assy. However it is part of the rear hanger assy.)
22	11154-00	1 per Rocker	Hex Lock Nut - 1 1/8" - 7 UNC, GR5
23	837-00	2 per Rocker	Washer - 1/8" x 1 1/4 OD x 2 1/4 OD
24	18723-01	1 per Rocker	Rocker Bushing Only - Rubber
25	16150-01	1 per Rocker	Hex Cap Screw - 1 1/8" x 7" x 6 5/8" LG, GR5
26	16168-09 or 16168-10 or 16168-13	2 2 2	Fabricated Rocker Assembly w/ Rubber Bushing, 97" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 109" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 121" Axle Spacing

Chart L - Spring Seat

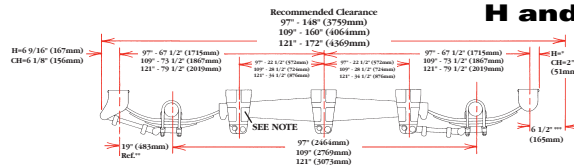
Seat Height	3/4"
5" Round	22215-01
5" x 5" Square	22226-01
4" x 6" Rect.	22228-01

❶ Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).

❷ Spring usage in H and CH 9700 USTWS 97", 109" and 121" suspensions is limited to high arch only.



H and CH-9700 US TWS 97", 109" & 121"

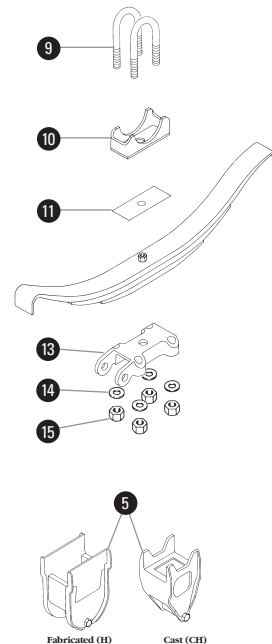
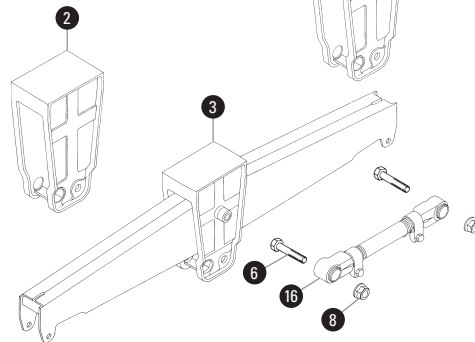
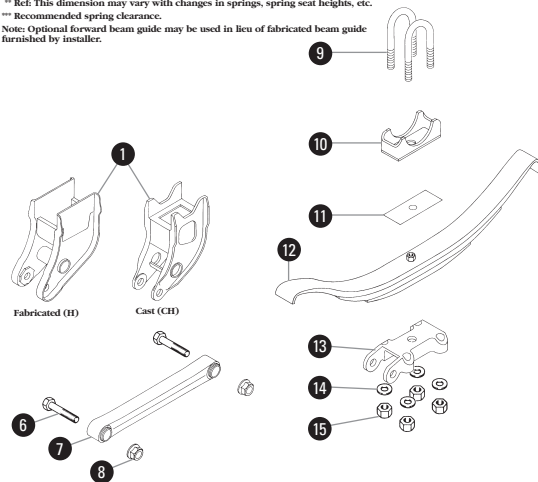


* Str/mt = 3 1/2" (89mm), Un/mt & Sl/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)

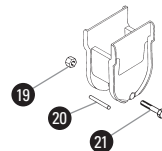
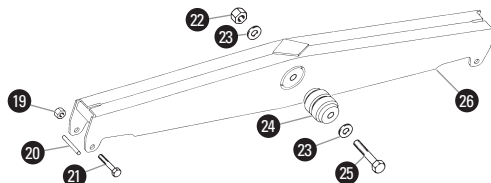
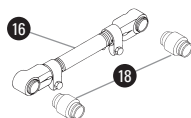
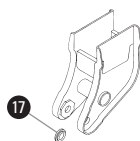
** Ref: This dimension may vary with changes in springs, spring seat heights, etc.

*** Recommended spring clearance.

Note: Optional forward beam guide may be used in lieu of fabricated beam guide furnished by installer.



Replacement Parts



H and CH-9700 US TWS 97", 109" and 121"

Chart M – Hanger: For Overslung and Underslung (US) 97", 109" and 121" Models

Description	Part No.	Hanger Configuration			Si/mt	Fl/mt/wo	Fl/mt/bo
		Str/mt	Un/mt	Un/mt (I-beam)			
Front Hgr., Fab. (H)	7701-	-01	20728-01	16481-01	NA	NA	L 07 R-08
Front Hgr., Cast (CH)		702-01	L 16291-03 R 16291-04	NA	NA	NA	L 702-11 R 702-12
Front Beam Guide, Fab. (H)	7707-	-13	-14	-14	NA	NA	NA
Front Beam Guide, Cast (CH)							
Underslung 97" and 109"		NA	12834-05	NA	NA	NA	NA
Underslung 121"		NA	12921-05	NA	NA	NA	NA
Center Rocker	97"	16456-	-01	-03	NA	NA	NA
Underslung 97"	16680-	NA	L 01 R-02	L 01 R-02	NA	NA	NA
& Rocker Hanger	109"	16457-	-01	-03	NA	NA	NA
Assembly, Fab. (H)	Underslung 109"	16681-	NA	L 01 R-02	NA	NA	NA
	121"	16458-	-01	-03	NA	NA	NA
Underslung 121"	16682-	NA	L 01 R-02	L 01 R-02	NA	NA	NA
Center Rocker	Underslung 97"	16680-	NA	L 01 R-02	NA	NA	NA
& Rocker Hanger	Underslung 109"	16681-	NA	L 01 R-02	NA	NA	NA
Assembly, Cast (CH)	Underslung 121"	16682-	NA	L 01 R-02	NA	NA	NA
Rocker Hgr. Only, Fab. (H)		16184-01	16185-01	16185-01	NA	NA	NA
Rocker Hgr. Only, Cast (CH)							
Underslung 97" and 109"		NA	16543-03	NA	NA	NA	NA
Underslung 121"		NA	16542-03	NA	NA	NA	NA
Rear Beam Guide, Fab. (H)	7707-	-13	-14	-14	NA	NA	NA
Rear Beam Guide, Cast (CH)							
Underslung 97" and 109"		NA	12834-05	NA	NA	NA	NA
Underslung 121"		NA	12921-05	NA	NA	NA	NA
Rear Hgr. Assy., Fab. (H)	7703-	-01	20732-01	16483-01	NA	NA	L 07 R-08
Rear Hgr. Assy., Cast (CH)		712-01	L 16293-01 R 16293-02	NA	NA	NA	L 712-11 R 712-12

Chart N – U-Bolt

5" Round Axle										
U-Bolts										
7816 – See Below, Std. 7/8 Dia. x 5 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring	Length	Three Leaf Spring*	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	NA	NA	NA	NA	-10	11 3/4	-12	12 3/4	-13	13 1/4
5" x 5" Square Axle										
U-Bolts										
7840 – See Below, Std. 7/8 Dia. x 5 Sq. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring	Length	Three Leaf Spring*	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	NA	NA	NA	NA	-06	11 3/4	-08	12 3/4	-09	13 1/4
4" x 6" Rectangle Axle										
U-Bolts										
7040 – See Below, Std. 7/8 Dia. x 3 Rd. x See Length Below										
Seat Height	Single Leaf Spring	Length	Two Leaf Spring	Length	Three Leaf Spring*	Length	Seven Leaf Spring	Length	Eight Leaf Spring	Length
3/4	NA	NA	NA	NA	-10	11 3/4	-12	12 3/4	-13	13 1/4

* When using 365-00 springs or 34-00 Hi-nuts, use 1/2" longer U-bolts.

Numerical Listing of Parts

Part No.	Description	Pg. #	Part No.	Description	Pg. #
34-00	Hex Nut - Hi, 7/8" - 14 UNF	8, 12, 16, 20, 24, 28	7747-01	Bottom Plate - 5" x 5" Square	8, 16, 24
34-04	Hex Nut - 7/8" - 14 UNF	5, 9, 13, 17, 21, 25	7816-08	U-Bolt - 7/8 Dia. x 5" Round x 10 3/4 LG	12, 20
35-00	Washer - FL, 15/16 ID x 1 3/4 OD	5, 9, 13, 17, 21, 25	7816-09	U-Bolt - 7/8 Dia. x 5" Round x 11 1/4 LG	12, 20
37-03	Hex Locknut - 5/8" - 18 UNF	5, 9, 13, 17, 19, 25	7816-10	U-Bolt - 7/8 Dia. x 5" Round x 12 3/4 LG	12, 20, 28
32-01	Spring Assembly - 2 Leaf, High Arch	4, Spring Appendix	7816-11	U-Bolt - 7/8 Dia. x 5" Round x 12 1/4 LG	12, 20
32-01	Spring Assembly - 2 Leaf, Medium Arch	4, Spring Appendix	7816-12	U-Bolt - 7/8 Dia. x 5" Round x 13 1/4 LG	12, 20, 28
32-01	Spring Assembly - 2 Leaf, Low Arch	4, Spring Appendix	7816-13	U-Bolt - 7/8 Dia. x 5" Round x 14 1/4 LG	12, 20, 28
35-00	Spring Assembly - 3 Leaf, High Arch	4, Spring Appendix	7816-14	U-Bolt - 7/8 Dia. x 5" Round x 15 1/4 LG	12, 20
35-00	Spring Assembly - 3 Leaf, Medium Arch	4, Spring Appendix	7816-15	U-Bolt - 7/8 Dia. x 5" Round x 16 1/4 LG	12, 20
35-00	Spring Assembly - 3 Leaf, Low Arch	4, Spring Appendix	7816-16	U-Bolt - 7/8 Dia. x 5" Round x 17 1/4 LG	12, 20
36-00	Spring Assembly - 1 Leaf, Low Arch	4, Spring Appendix	7840-04	U-Bolt - 7/8 Dia. x 5" Square x 10 3/4 LG	12, 20
36-00	Spring Assembly - 3 Leaf, High Arch H.D.	4, Spring Appendix	7840-05	U-Bolt - 7/8 Dia. x 5" Square x 11 1/4 LG	12, 20
36-01	Spring Assembly - 3 Leaf, Low Arch H.D.	4, Spring Appendix	7840-06	U-Bolt - 7/8 Dia. x 5" Square x 12 1/4 LG	12, 20, 28
70-01	Front Spring Hanger - Cast, Str/mt	5, 9, 20, 28	7840-07	U-Bolt - 7/8 Dia. x 5" Square x 13 1/4 LG	12, 20
70-09	Front Spring Hanger - Cast, Fl/mt/wo, Left	5, 9, 20, 28	7840-08	U-Bolt - 7/8 Dia. x 5" Square x 14 1/4 LG	12, 20, 28
70-10	Front Spring Hanger - Cast, Fl/mt/wo, Right	5, 9, 20, 28	7840-09	U-Bolt - 7/8 Dia. x 5" Square x 15 1/4 LG	12, 20, 28
70-11	Front Spring Hanger - Cast, Fl/mt/wo, Left	5, 9, 20, 28	7840-10	U-Bolt - 7/8 Dia. x 5" Square x 16 1/4 LG	12, 20
70-12	Front Spring Hanger - Cast, Fl/mt/wo, Right	5, 9, 20, 28	7840-11	U-Bolt - 7/8 Dia. x 5" Square x 17 1/4 LG	12, 20
70-01	Bottom Plate - Att., Cast	9, 17, 25	7840-12	U-Bolt - 7/8 Dia. x 5" Square x 18 1/4 LG	12, 20
71-00	Bottom Plate - U-Bolt, 5" Round	8, 16, 24	10562-00	Flange Locknut - 1 - 14 UNS, GRE Phosphate & Oil	5, 9, 13, 17, 21, 25
71-01	Rear Spring Hanger - Cast, Str/mt	5, 9, 20, 28	10775-00	Att. Assembly - Radius Rod, 5" Round	8, 16, 24
71-09	Rear Spring Hanger - Cast, Fl/mt/wo, Left	5, 9, 20, 28	11154-00	Hex Locknut - 1 1/8 - 7 UNC, GR5	5, 9, 13, 17, 21, 25
71-10	Rear Spring Hanger - Cast, Fl/mt/wo, Right	5, 9, 20, 28	12834-05	Beam Guide - Cast, Un/mt, Widespread,	28
71-11	Rear Spring Hanger - Cast, Fl/mt/wo, Left	5, 9, 20, 28	US 97 & 109		
71-12	Rear Spring Hanger - Cast, Fl/mt/wo, Right	5, 9, 20, 28	12921-05	Beam Guide - Cast, Un/mt, Widespread, US 121	28
71-50	Non-Adj. Radius Rod w/ Bushing - 19 1/4 LG	5, 9, 13, 17, 21, 25	16150-01	Hex Cap Screw - 1 1/8 x 7 x 6 5/8 LG, GR5	5, 9, 13, 17, 21, 25
71-92	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"	5, 9, 13, 17, 21, 25	16160-01	Rocker Assembly - Cast, w/ Rubber Bushing, 54.5 A/C	5, 9
72-00	Radius Rod Bushing - 3 LG	5, 9, 13, 17, 21, 25	16168-02	Rocker Assembly - Fab. w/ Rubber Bushing, 61 A/C	13, 17
75-101	Spring Assembly - 7 Leaf, Low Arch	4, Spring Appendix	16168-03	Rocker Assembly - Fab. w/ Rubber Bushing, 67 A/C	13, 17
75-105	Spring Assembly - 7 Leaf, High Arch	4, Spring Appendix	16168-04	Rocker Assembly - Fab. w/ Rubber Bushing, 73 A/C	13, 17
75-106	Spring Assembly - 7 Leaf, High Arch, Single Axle	4, Spring Appendix	16168-07	Rocker Assembly - Fab. w/ Rubber Bushing, 81 A/C	13, 17
75-201	Spring Assembly - 8 Leaf, Low Arch H.D.	4, Spring Appendix	16168-09	Rocker Assembly - Fab. w/ Rubber Bushing, 97 A/C	21, 25
75-205	Spring Assembly - 8 Leaf, High Arch H.D.	4, Spring Appendix	16168-10	Rocker Assembly - Fab. w/ Rubber Bushing, 109 A/C	21, 25
75-206	Spring Assembly - 8 Leaf, High Arch H.D. Single Axle & Widespread	4, Spring Appendix	16180-01	Rocker Hanger - Cast, Str/mt, 54.5 - 81 A/C	5, 9, 20
75-600	Sleeve Spacer - 3/4 OD x 18 GA x 3 1/4"	5, 9, 13, 17, 21, 25	16181-01	Rocker Hanger - Cast, Un/mt & Si/mt, 54.5 - 81 A/C	5, 9, 20
75-900	Hex Bolt - 5/8" - 18 UNF x 1 1/2", GR5	5, 9, 13, 17, 21, 25	16183-03	Rocker Hanger - Cast, Fl/mt/wo, Left, 54.5 - 81 A/C	5, 9, 20
81-700	Washer - 1/8" x 13/16 ID x 1 1/2 OD	5, 13, 21	16183-04	Rocker Hanger - Cast, Fl/mt/wo, Right, 54.5 - 81 A/C	5, 9, 20
83-700	Washer - 1/8" x 1 1/4 ID x 2 1/4 OD	5, 9, 13, 17, 21, 25	16183-05	Rocker Hanger - Cast, Fl/mt/wo, Left, 54.5 - 81 A/C	5, 9, 20
6786-00	U-Bolt Clamp - 4" x 6" Axle, Cast	9, 17	16183-06	Rocker Hanger - Cast, Fl/mt/wo, Right, 54.5 - 81 A/C	5, 9, 20
70-006	U-Bolt - 7/8 Dia. x 3" Round x 9 3/4 LG	8, 16, 24	16184-01	Rocker Hanger - Fab., Str/mt, 97 - 121 A/C	28
70-007	U-Bolt - 7/8 Dia. x 3" Round x 10 1/4 LG	8, 16, 24	16185-01	Rocker Hanger - Fab., Un/mt, 97 - 121 A/C	28
70-008	U-Bolt - 7/8 Dia. x 3" Round x 11 1/4 LG	8, 12, 16, 20, 24	16291-03	Front Spring Hanger - Cast, Un/mt & Si/mt, Left	5, 9, 20, 28
70-009	U-Bolt - 7/8 Dia. x 3" Round x 12 1/4 LG	8, 12, 16, 20, 24	16291-04	Front Spring Hanger - Cast, Un/mt & Si/mt, Right	5, 9, 20, 28
70-010	U-Bolt - 7/8 Dia. x 3" Round x 13 1/4 LG	8, 12, 16, 20, 24, 28	16291-01	Rear Spring Hanger - Cast, Un/mt & Si/mt, Left	5, 9, 20, 28
70-011	U-Bolt - 7/8 Dia. x 3" Round x 12 1/4 LG	8, 12, 16, 20, 24	16291-02	Rear Spring Hanger - Cast, Un/mt & Si/mt, Right	5, 9, 20, 28
70-012	U-Bolt - 7/8 Dia. x 3" Round x 12 3/4 LG	8, 12, 16, 20, 24, 28	16297-01	Bottom Plate - 5" Round, 3/4 Dia. U-Bolt	8, 16, 24
70-013	U-Bolt - 7/8 Dia. x 3" Round x 13 1/4 LG	8, 12, 16, 20, 24, 28	16300-06	U-Bolt - 3/4 Dia. x 3" Round x 9 3/4 LG	8, 16, 24
70-014	U-Bolt - 7/8 Dia. x 3" Round x 13 3/4 LG	8, 12, 16, 20, 24	16300-07	U-Bolt - 3/4 Dia. x 3" Round x 10 1/4 LG	8, 16, 24
70-015	U-Bolt - 7/8 Dia. x 3" Round x 14 1/4 LG	8, 12, 16, 20, 24	16300-08	U-Bolt - 3/4 Dia. x 3" Round x 10 3/4 LG	8, 16, 24
70-016	U-Bolt - 7/8 Dia. x 3" Round x 14 3/4 LG	8, 16, 24	16300-09	U-Bolt - 3/4 Dia. x 3" Round x 11 1/4 LG	8, 16, 24
70-017	U-Bolt - 7/8 Dia. x 3" Round x 15 1/4 LG	8, 16, 24	16300-10	U-Bolt - 3/4 Dia. x 3" Round x 11 3/4 LG	8, 16, 24
70-018	U-Bolt - 7/8 Dia. x 3" Round x 15 3/4 LG	8, 16, 24	16300-11	U-Bolt - 3/4 Dia. x 3" Round x 12 1/4 LG	8, 16, 24
70-019	U-Bolt - 7/8 Dia. x 3" Round x 16 1/4 LG	8, 16, 24	16300-12	U-Bolt - 3/4 Dia. x 3" Round x 12 3/4 LG	8, 16, 24
70-020	U-Bolt - 7/8 Dia. x 3" Round x 16 3/4 LG	8, 16, 24	16300-13	U-Bolt - 3/4 Dia. x 3" Round x 13 1/4 LG	8, 16, 24
70-021	U-Bolt - 7/8 Dia. x 3" Round x 17 1/4 LG	8, 16, 24	16300-14	U-Bolt - 3/4 Dia. x 3" Round x 13 3/4 LG	8, 16, 24
70-022	U-Bolt - 7/8 Dia. x 3" Round x 17 3/4 LG	8, 16, 24	16300-15	U-Bolt - 3/4 Dia. x 3" Round x 14 1/4 LG	8, 16, 24
70-023	U-Bolt - 7/8 Dia. x 3" Round x 18 1/4 LG	8, 16, 24	16300-16	U-Bolt - 3/4 Dia. x 3" Round x 14 3/4 LG	8, 16, 24
7701-01	Front Spring Hanger - Str/mt	5, 9, 20, 28	16300-17	U-Bolt - 3/4 Dia. x 3" Round x 15 1/4 LG	8, 16, 24
7701-05	Front Spring Hanger - Fl/mt/wo, Left	5, 9, 20, 28	16300-18	U-Bolt - 3/4 Dia. x 3" Round x 15 3/4 LG	8, 16, 24
7701-06	Front Spring Hanger - Fl/mt/wo, Right	5, 9, 20, 28	16300-19	U-Bolt - 3/4 Dia. x 3" Round x 16 1/4 LG	8, 16, 24
7701-07	Front Spring Hanger - Fl/mt/wo, Left	5, 9, 20, 28	16303-01	Hex Nut - 3/4 - 16 UNF, GR5	5, 13, 21
7701-08	Front Spring Hanger - Fl/mt/wo, Right	5, 9, 20, 28	16308-01	No-Hop Att. Assy. - 5" Round, 3/4 Dia. U-Bolt	8, 16, 24
7703-01	Rear Spring Hanger - Str/mt	5, 9, 20, 28	16316-01	Spring Assembly - FRP, Low Arch H.D.	4, Spring Appendix
7703-05	Rear Spring Hanger - Fl/mt/wo, Left	5, 9, 20, 28	16398-04	Adj. Radius Rod w/ Bushing &	5, 9, 13, 17, 21, 25
7703-06	Rear Spring Hanger - Fl/mt/wo, Right	5, 9, 20, 28	NEVER-SEEZ - 19 1/4 LG		
7703-07	Rear Spring Hanger - Fl/mt/wo, Left	5, 9, 20, 28	16398-05	Adj. Radius Rod w/ Bushing &	5, 9
7703-08	Rear Spring Hanger - Fl/mt/wo, Right	5, 9, 20, 28	NEVER-SEEZ - 20 1/4 LG		
7707-13	Beam Guide - Str/mt, Widespread, Att.	28	16398-07	Adj. Radius Rod w/ Bushing &	5, 8, 9
7707-14	Beam Guide - Un/mt, Widespread, Att.	28	NEVER-SEEZ - 22 1/4 LG		
7717-01	Washer Bushing	5, 9, 13, 17, 21, 25	16398-08	Adj. Radius Rod w/ Bushing &	8, 15, 17
77380-00	Att. Fitting - Radius Rod, 4" x 6" Rect.	8, 16, 24	NEVER-SEEZ - 23 1/2 LG		
77480-01	Att. Fitting - Radius Rod, 5" x 5" Square	8, 16, 24	16398-09	Adj. Radius Rod w/ Bushing &	16
77460-00	Bottom Plate - 4" x 6" Rect.	8, 16, 24	NEVER-SEEZ - 25 LG		

Part No.	Description	Pg. #	Part No.	Description	Pg. #
16398-10	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 26 1/2 LG	13, 17	16681-01	Rocker & Hanger Assy - Un/mt, Left, US 109 A/C	28
16398-11	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 28 LG	16	16681-02	Rocker & Hanger Assy - Un/mt, Right, US 109 A/C	28
16398-12	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 29 1/4 LG	13, 17	16682-01	Rocker & Hanger Assy - Un/mt, Left, US 121 A/C	28
16398-13	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 30 3/4 LG	16	16682-02	Rocker & Hanger Assy - Un/mt, Right, US 121 A/C	28
16398-14	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 33 1/2 LG	13, 17	16710-01	Spring Assembly - 2 Leaf, 2 Stage, Medium Arch	4, Spring Appendix
16398-15	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 34 3/4 LG	16	16806-01	Top Plate - Roll Formed	5, 13, 21
16398-17	Adj. Radius Rod w/ Bushing & NEVER-SEIZ - 17 LG	21, 25	17350-02	Galvanized Liner - .09 x 3 x 7 1/2 w/ Hole	5, 9, 13, 17, 21, 25
16449-01	Rocker & Hanger Assy - Str/mt, Left, 54.5 A/C	5, 9	17604-02	Rocker Assembly - Fab. w/ Rubber Bushing	5, 9
16449-02	Rocker & Hanger Assy - Str/mt, Right, 54.5 A/C	5, 9	57.5 A/C	Spring Assembly - 2 Leaf, 2 Stage, Medium Arch	4, Spring Appendix
16449-03	Rocker & Hanger Assy - Un/mt, Left, 54.5 A/C	5, 9	18723-01	Multi Axle & Widespread	5, 9, 13, 17, 21, 25
16449-04	Rocker & Hanger Assy - Un/mt, Right, 54.5 A/C	5, 9	18723-01	Rocker Bushing Assembly - Rubber	5, 9, 13, 17, 21, 25
16449-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 54.5 A/C	5, 9	19360-01	Spring Seat - Att., 5" Round, 3/4 High	5, 13, 21
16449-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 54.5 A/C	5, 9	19360-02	Spring Seat - Att., 5" Round, 1 1/4 High	5, 13, 21
16449-09	Rocker & Hanger Assy - Fl/mt/wo, Left, 54.5 A/C	5, 9	19360-03	Spring Seat - Att., 5" Round, 1 3/4 High	5, 13, 21
16449-10	Rocker & Hanger Assy - Fl/mt/wo, Right, 54.5 A/C	5, 9	19360-04	Spring Seat - Att., 5" Round, 2 3/4 High	5, 13, 21
16450-01	Rocker & Hanger Assy - Str/mt, Left, 57.5 A/C	5, 9	19360-06	Spring Seat - Att., 5" Round, 3 1/4 High	5, 13, 21
16450-02	Rocker & Hanger Assy - Str/mt, Right, 57.5 A/C	5, 9	19360-07	Spring Seat - Att., 5" Round, 3 5/4 High	5, 13, 21
16450-03	Rocker & Hanger Assy - Un/mt, Left, 57.5 A/C	5, 9	19360-08	Spring Seat - Att., 5" Round, 4 1/4 High	5, 13, 21
16450-04	Rocker & Hanger Assy - Un/mt, Right, 57.5 A/C	5, 9	19360-09	Spring Seat - Att., 5" Round, 4 3/4 High	5, 13, 21
16450-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 57.5 A/C	5, 9	19364-01	Spring Seat - Att., 4" x 6" Rect., 3/4 High	5, 13, 21
16450-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 57.5 A/C	5, 9	19364-02	Spring Seat - Att., 4" x 6" Rect., 1 1/4 High	5, 13, 21
16450-09	Rocker & Hanger Assy - Fl/mt/wo, Left, 57.5 A/C	5, 9	19364-03	Spring Seat - Att., 4" x 6" Rect., 1 3/4 High	5, 13, 21
16450-10	Rocker & Hanger Assy - Fl/mt/wo, Right, 57.5 A/C	5, 9	19364-04	Spring Seat - Att., 4" x 6" Rect., 2 1/4 High	5, 13, 21
16451-01	Rocker & Hanger Assy - Str/mt, Left, 61 A/C	20	19364-05	Spring Seat - Att., 4" x 6" Rect., 3 1/4 High	5, 13, 21
16451-02	Rocker & Hanger Assy - Str/mt, Right, 61 A/C	20	19364-06	Spring Seat - Att., 4" x 6" Rect., 3 5/4 High	5, 13, 21
16451-03	Rocker & Hanger Assy - Un/mt & S/mt, Left, 61 A/C	20	19364-08	Spring Seat - Att., 4" x 6" Rect., 3 3/4 High	5, 13, 21
16451-04	Rocker & Hanger Assy - Un/mt & S/mt, Right, 61 A/C	20	19364-09	Spring Seat - Att., 4" x 6" Rect., 3 1/4 High	5, 13, 21
16451-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 61 A/C	20	19365-01	Spring Seat - Att., 5" x 5" Square, 3/4 High	5, 13, 21
16451-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 61 A/C	20	19365-02	Spring Seat - Att., 5" x 5" Square, 1 1/4 High	5, 13, 21
16451-09	Rocker & Hanger Assy - Fl/mt/wo, Left, 61 A/C	20	19365-03	Spring Seat - Att., 5" x 5" Square, 1 3/4 High	5, 13, 21
16451-10	Rocker & Hanger Assy - Fl/mt/wo, Right, 61 A/C	20	19365-04	Spring Seat - Att., 5" x 5" Square, 2 1/4 High	5, 13, 21
16452-01	Rocker & Hanger Assy - Str/mt, Left, 67 A/C	20	19365-05	Spring Seat - Att., 5" x 5" Square, 2 3/4 High	5, 13, 21
16452-02	Rocker & Hanger Assy - Str/mt, Right, 67 A/C	20	19365-06	Spring Seat - Att., 5" x 5" Square, 3 1/4 High	5, 13, 21
16452-03	Rocker & Hanger Assy - Un/mt & S/mt, Left, 67 A/C	20	19365-07	Spring Seat - Att., 5" x 5" Square, 3 3/4 High	5, 13, 21
16452-04	Rocker & Hanger Assy - Un/mt & S/mt, Right, 67 A/C	20	19365-08	Spring Seat - Att., 5" x 5" Square, 4 1/4 High	5, 13, 21
16452-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 67 A/C	20	19365-09	Spring Seat - Att., 5" x 5" Square, 4 3/4 High	5, 13, 21
16452-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 67 A/C	20	20728-01	Front Spring Hanger - Un/mt	5, 9, 20, 28
16452-10	Rocker & Hanger Assy - Fl/mt/wo, Left, 67 A/C	20	20729-01	Front Spring Hanger - S/mt, Left	5, 9, 20, 28
16453-01	Rocker & Hanger Assy - Str/mt, Left, 73 A/C	20	20730-01	Front Spring Hanger - S/mt, Right	5, 9, 20, 28
16453-02	Rocker & Hanger Assy - Str/mt, Right, 73 A/C	20	20732-01	Rear Spring Hanger - Un/mt	5, 9, 20, 28
16453-03	Rocker & Hanger Assy - Un/mt & S/mt, Left, 73 A/C	20	20733-01	Rear Spring Hanger - S/mt, Left	5, 9, 20, 28
16453-04	Rocker & Hanger Assy - Un/mt & S/mt, Right, 73 A/C	20	20734-01	Rear Spring Hanger - S/mt, Right	5, 9, 20, 28
16453-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 73 A/C	20	22215-01	Spring Seat - 5" Round, 3/4 High	8, 12, 16, 20, 24, 25
16453-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 73 A/C	20	22215-02	Spring Seat - 5" Round, 1 1/4 High	8, 12, 16, 20, 24
16453-09	Rocker & Hanger Assy - Fl/mt/wo, Left, 73 A/C	20	22215-03	Spring Seat - 5" Round, 1 3/4 High	8, 12, 16, 20, 24
16453-10	Rocker & Hanger Assy - Fl/mt/wo, Right, 73 A/C	20	22215-04	Spring Seat - 5" Round, 2 1/4 High	8, 12, 16, 20, 24
16454-01	Rocker & Hanger Assy - Str/mt, Left, 81 A/C	20	22226-01	Spring Seat - 5" x 5" Square, 3/4 High	8, 12, 16, 20, 24
16454-02	Rocker & Hanger Assy - Str/mt, Right, 81 A/C	20	22226-02	Spring Seat - 5" x 5" Square, 1 1/4 High	8, 12, 16, 20, 24
16454-03	Rocker & Hanger Assy - Un/mt & S/mt, Left, 81 A/C	20	22226-03	Spring Seat - 5" x 5" Square, 1 3/4 High	8, 12, 16, 20, 24
16454-04	Rocker & Hanger Assy - Un/mt & S/mt, Right, 81 A/C	20	22226-04	Spring Seat - 5" x 5" Square, 2 1/4 High	8, 12, 16, 20, 24
16454-07	Rocker & Hanger Assy - Fl/mt/bo, Left, 81 A/C	20	22228-01	Spring Seat - 4" x 6" Rect., 3/4 High	8, 12, 16, 20, 24, 25
16454-08	Rocker & Hanger Assy - Fl/mt/bo, Right, 81 A/C	20	22228-02	Spring Seat - 4" x 6" Rect., 1 1/4 High	8, 12, 16, 20, 24
16454-09	Rocker & Hanger Assy - Fl/mt/wo, Left, 81 A/C	20	22228-03	Spring Seat - 4" x 6" Rect., 1 3/4 High	8, 12, 16, 20, 24
16454-10	Rocker & Hanger Assy - Fl/mt/wo, Right, 81 A/C	20	22228-04	Spring Seat - 4" x 6" Rect., 2 1/4 High	8, 12, 16, 20, 24
16456-01	Rocker & Hanger Assy - Fab., Str/mt, 97 A/C	28			
16456-03	Rocker & Hanger Assy - Fab., Un/mt, 97 A/C	28			
16457-01	Rocker & Hanger Assy - Fab., Str/mt, 109 A/C	28			
16457-03	Rocker & Hanger Assy - Fab., Un/mt, 109 A/C	28			
16458-01	Rocker & Hanger Assy - Fab., Str/mt, 121 A/C	28			
16458-03	Rocker & Hanger Assy - Fab., Un/mt, 121 A/C	28			
16481-01	Front Spring Hanger - Un/mt, Topless	5, 9, 20, 28			
16483-01	Rear Spring Hanger - Un/mt, Topless	5, 9, 20, 28			
16542-03	Rocker Hanger - Cast, Un/mt, US 121 A/C	28			
16543-03	Rocker Hanger - Cast, Un/mt, US 97 & 109 A/C	28			
16680-01	Rocker & Hanger Assy - Un/mt, Left, US 97 A/C	28			
16680-02	Rocker & Hanger Assy - Un/mt, Right, US 97 A/C	28			



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