



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 lawful limits. A variety of hanger styles and axle configurations allow the 9700 TWS to be adapted to virtually any type of frame.

Capacity

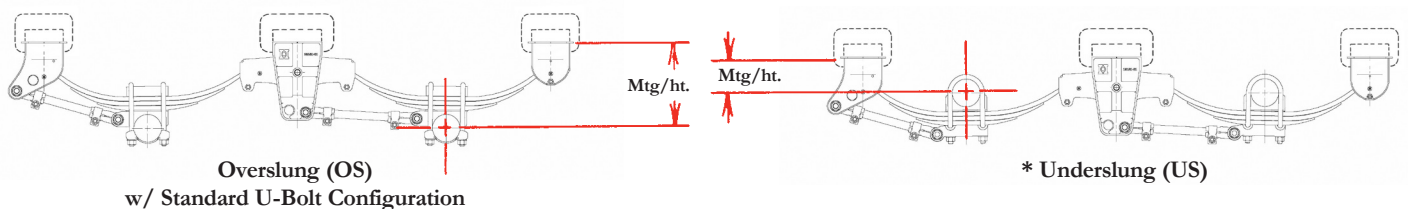
Heavy-duty three leaf or eight leaf springs are recommended for use with 9700 TWS suspensions. When equipped with these springs, the Gross Axle Weight Rating (G.A.W.R.) is 25,000 lbs./axle. When equipped with standard three leaf or seven leaf springs the G.A.W.R. is 22,400 lbs./axle.

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

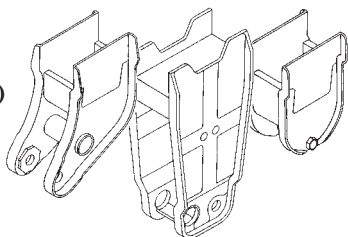
The 9700 TWS Series suspensions are, by definition, tandem axle units. However, multi-axle configurations – suspensions having more than two axles – are possible. A tri-axle suspension consists of a tandem axle kit plus a multi-axle conversion kit. Many such combinations are possible.



* 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.

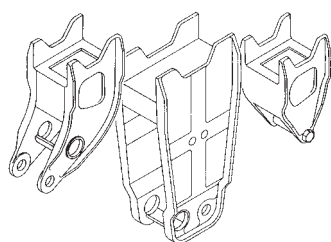
All 9700 Series suspensions are available with either fabricated or cast steel hangers. These hangers come in various styles. Please note that on all intermediate widespread suspensions the center rocker hanger is cast.

Fabricated (H)



Straddle Mount (Str/mt)

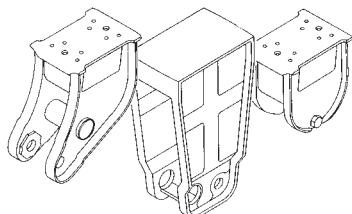
Straddle Mount Hangers are for use with box type frames. Each hanger straddles the frame and is welded to both sides of the frame. This is our strongest hanger mounting.



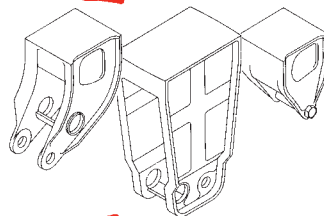
Cast (CH)

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)



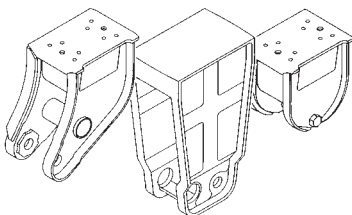
Cast (CH)

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

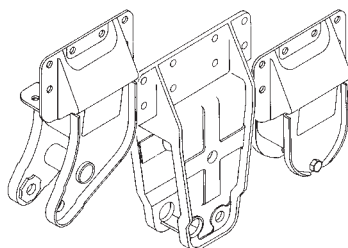
These versatile Weld-on hangers can be used for either under mount or side mount applications.

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.

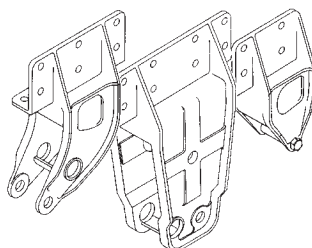


Fabricated (H)



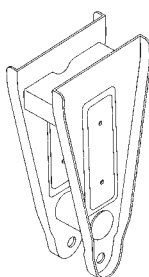
Flange Mount (Fl/mt)

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.

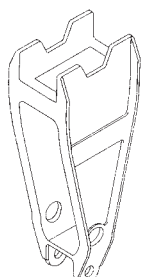


Cast (CH)

(H)



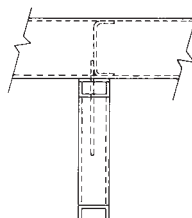
(CH)



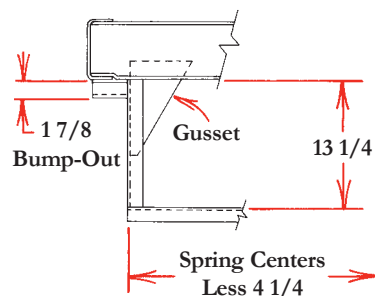
Hanger type beam guides furnished by Hutchens

in lieu of

Recommended Material
3" Structural Channel



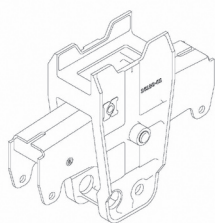
Fabricated beam guide furnished by installer
(Ref. Hutchens Drawing No. 11400)



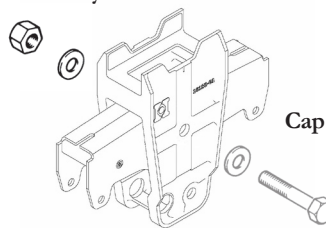
Note: Wear pads of UHMW Polymer are factory installed in the fabricated hanger type beam guides.

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.)

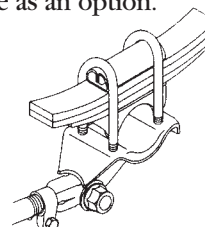


Cap Screw (Opt.)

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.



Seat/Ht.



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 5 1/2" 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	See 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.)	Overslung 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

1. 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).
2. 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.
3. 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.
4. Mounting heights shown are for Undermount, Sidemount and Flangemount hangers. Subtract 1/4" (6mm) for Straddle-mount hangers.
5. 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).
6. 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.
7. 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		Description
		Axle		
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 C, Page 8	8		U-Bolt - Standard 7/8" U-Bolt (Shown)
8	16868-01	4		Top Plate
9	17350-02	4		Galvanized Liner ❶
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 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)
14	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)
15	16398-04 16398-05 16398-07	1 2 2		Adj. Radius Rod w/ Bushing - 19 1/4 LG, Front Roadside (LH) Only Adj. Radius Rod w/ Bushing - 20 1/4 LG, 54.5" Axle Spacing Adj. Radius Rod w/ Bushing - 22 1/4 LG, 57.5" Axle Spacing
16	See Chart E, Page 8	2		Spring Seat - Replaces Rear Spring Seat Only
17	See Chart E, Page 8	2		Attach Fitting - Replaces Rear Bottom Plate Only
18	See Chart E, Page 8	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	24820-01 21833-01	2 2		Fabricated Rocker Assembly w/ Rubber Bushing - 54.5" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing - 57.5" 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
29	16353-01	1 per Rocker		Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03

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

Description	Part No.	Hanger Configuration						Fl/mt/wo	Fl/mt/bo
		Str/mt	Un/mt	Un/mt (I-beam)	Si/mt				
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"	17160-	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) 54.5" & 57.5"		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

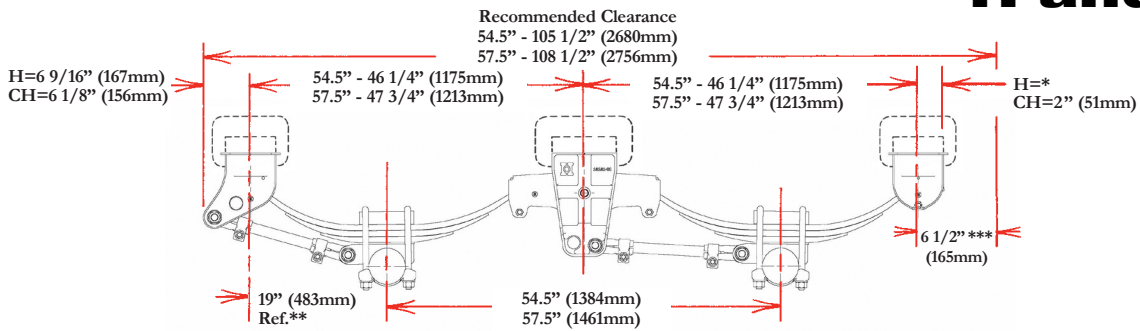
Chart B - Spring Seat

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

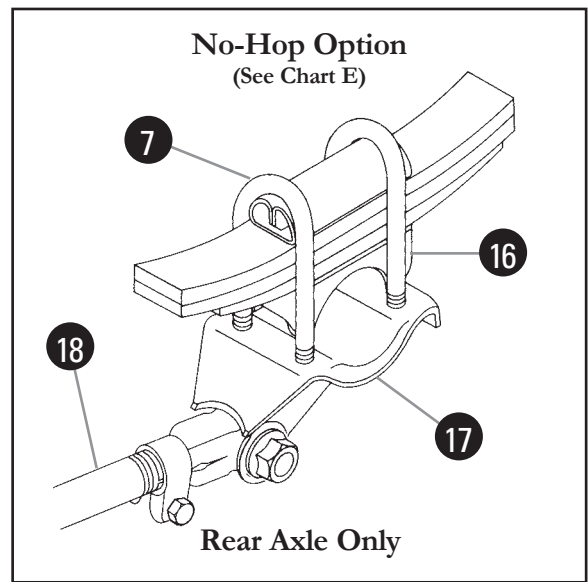
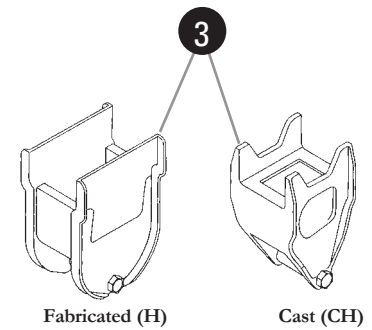
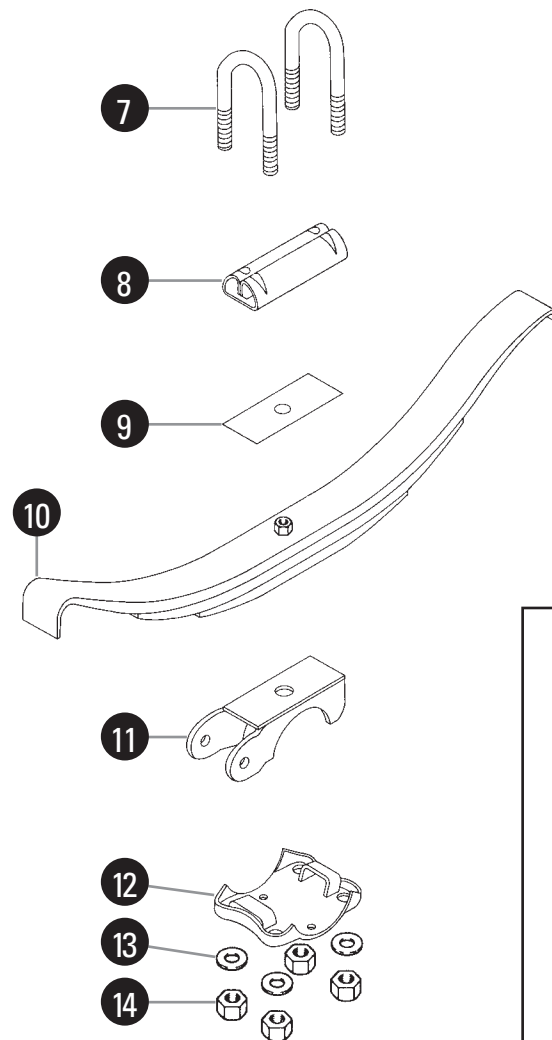
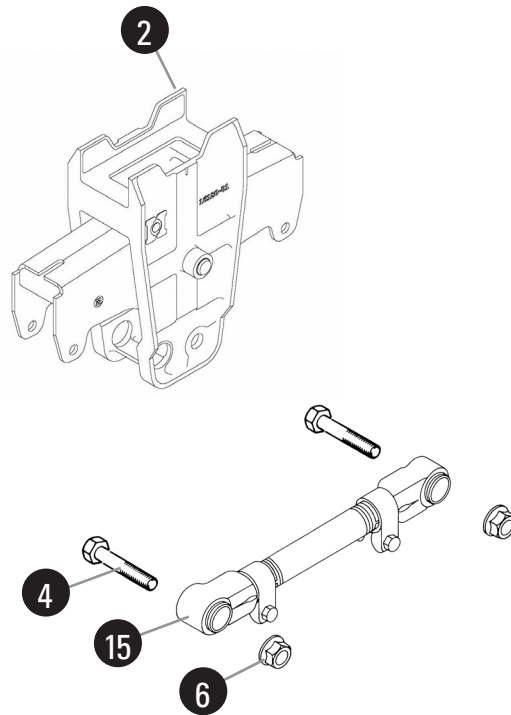
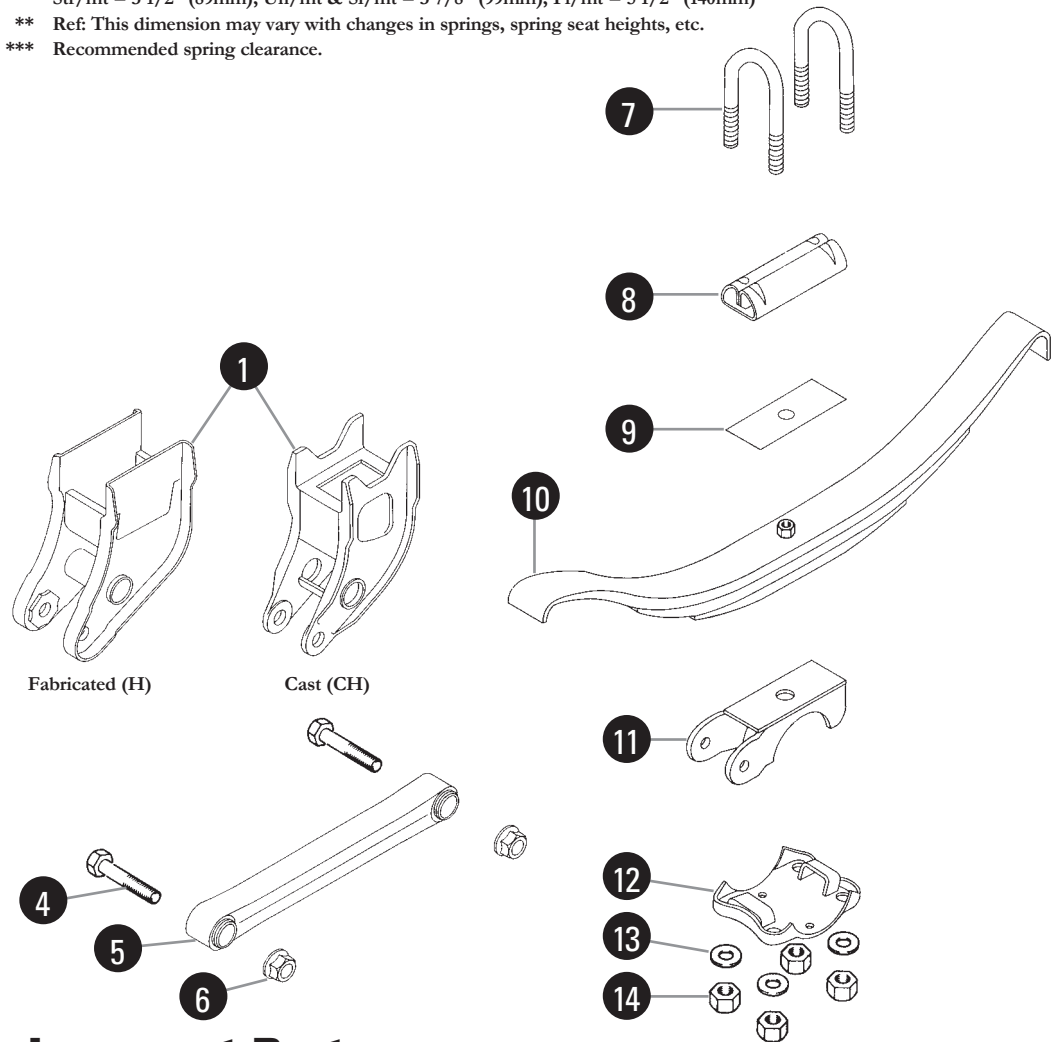
❶ Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



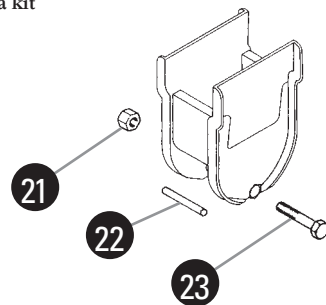
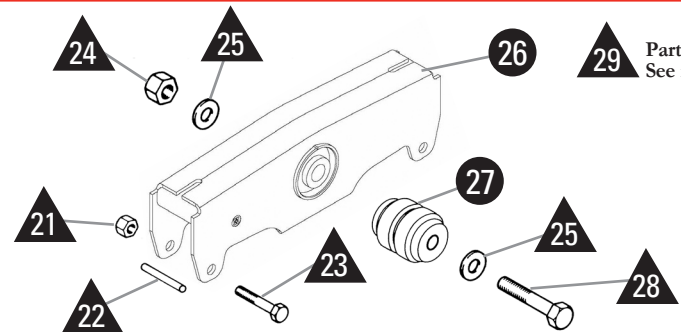
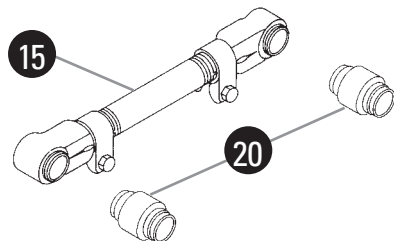
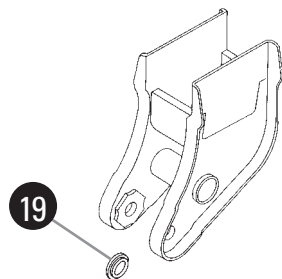
H and CH-9700 TWS 54.5" and 57.5"



* Str/mt = 3 1/2" (89mm), Un/mt & Si/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



Parts available as a kit
See item 29 Pg. 5

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 Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf 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 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		
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 Height	Single Leaf Spring	Length	Two Leaf Spring*	Length	Three Leaf Spring**	Length	Seven Leaf Spring	Length	Eight Leaf 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	710-00
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		Two		Three		Seven		Eight		
Leaf	Leaf		Leaf		Leaf		Leaf		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	13 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			(w/ Opt. 3/4			Seat	
Height	54.5"	57.5"		Dia. U-Bolts)			Dia. U-Bolts)				
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										
Seat Height		Radius Rod			Attach Fitting			Seat		
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	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										
Seat Height		Radius Rod		Attach Fitting			Seat			
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 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 ❶
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	24820-01	2	Fabricated Rocker Assembly w/ Rubber Bushing - 54.5" Axle Spacing
	21833-01	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
26	16353-01	1 per Rocker	Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03

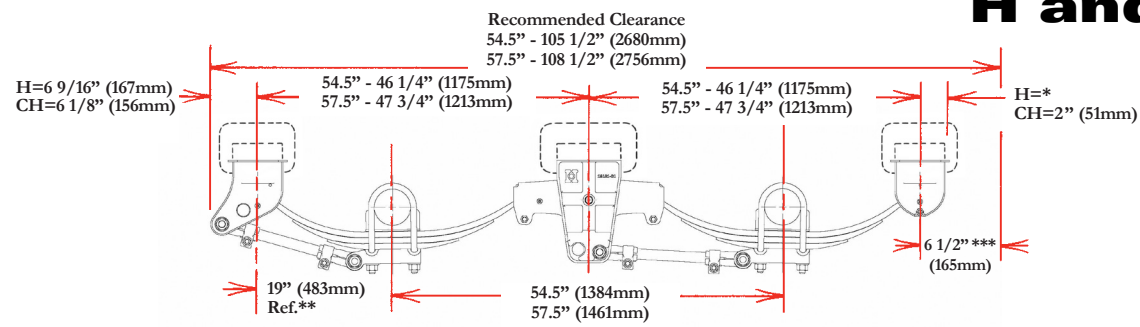
Chart A - Hanger: For Overslung and Underslung 54.5" and 57.5" Models

Description	Part No.	Str/mt	Un/mt	Hanger Configuration				Fl/mt/wo	Fl/mt/bo
				Un/mt (I-beam)	Si/mt				
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"	17160-	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) 54.5" & 57.5"		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

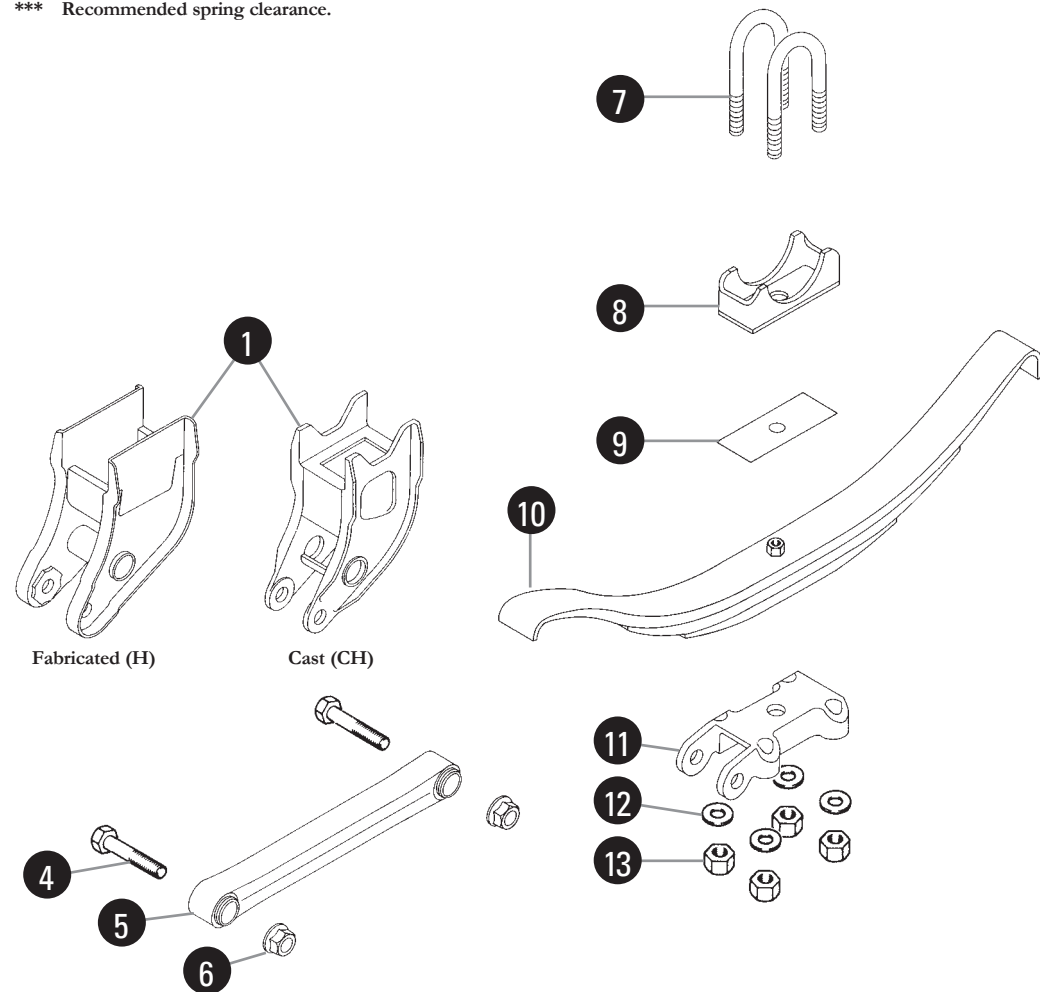
❶ Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



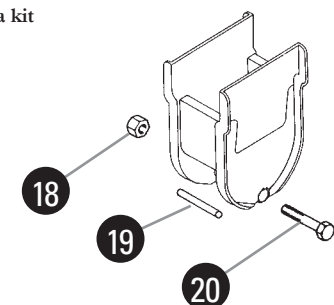
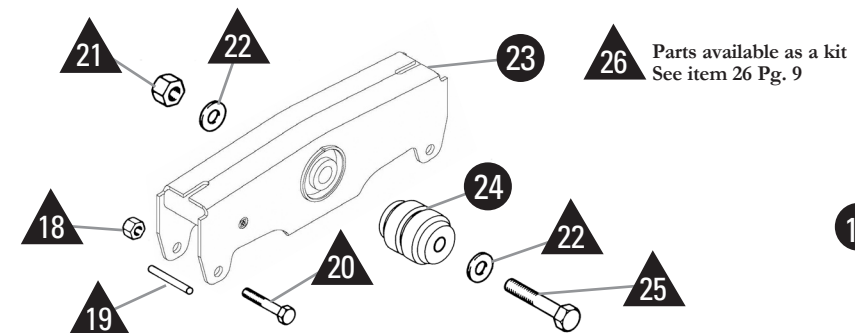
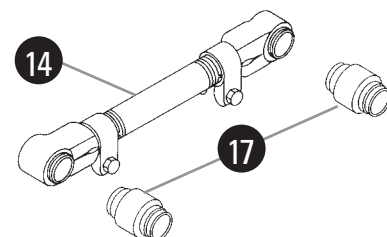
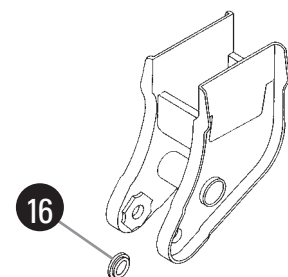
H and CH-9700 US TWS 54.5" and 57.5"



* Str/mt = 3 1/2" (89mm), Un/mt & Si/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 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 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 C, Page 16	8	U-Bolt - Standard 7/8" U-Bolt (Shown)
8	16868-01	4	Top Plate
9	17350-02	4	Galvanized Liner ❶
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 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)
14	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)
15	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
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	21834-01 or 16168-03 or 21835-01 or 16168-07	2 2 2 2	Fabricated Rocker Assembly w/ Rubber Bushing, 61" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 67" Axle Spacing Fabricated Rocker Assembly w/ Rubber Bushing, 73" Axle Spacing 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
29	16353-01	1 per Rocker	Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03

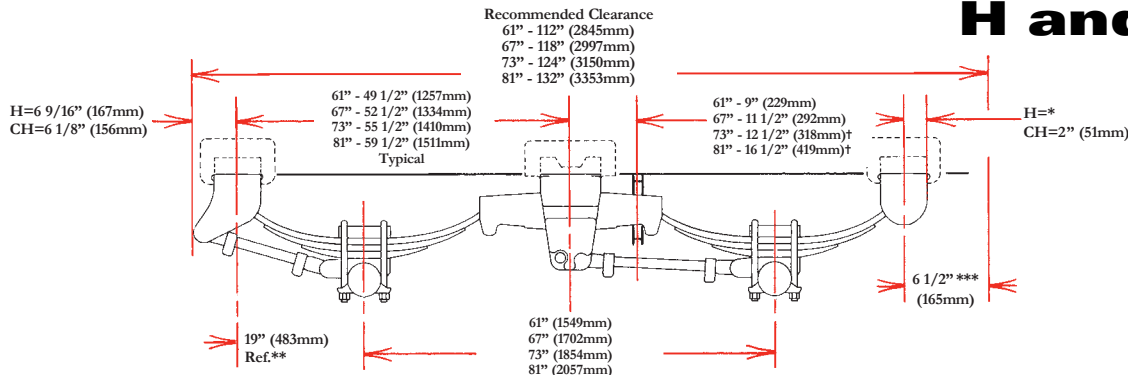
Chart B - Spring Seat

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

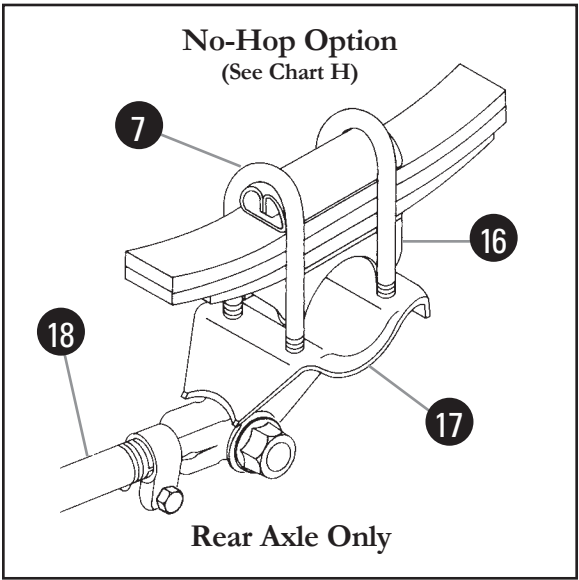
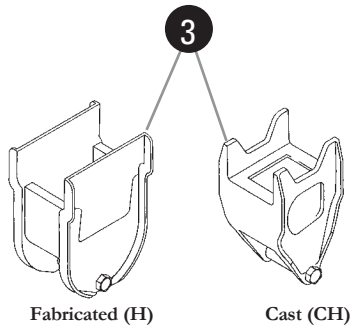
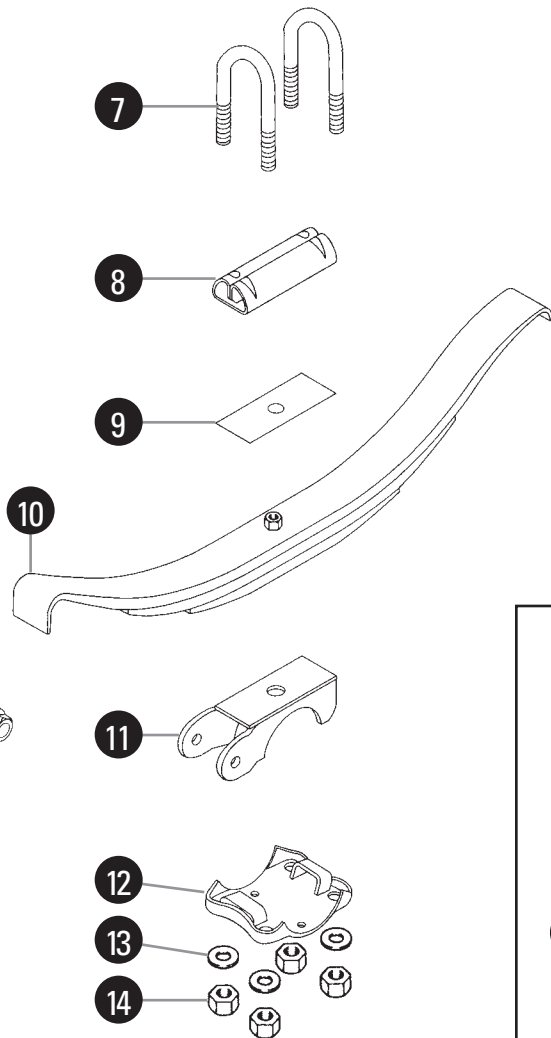
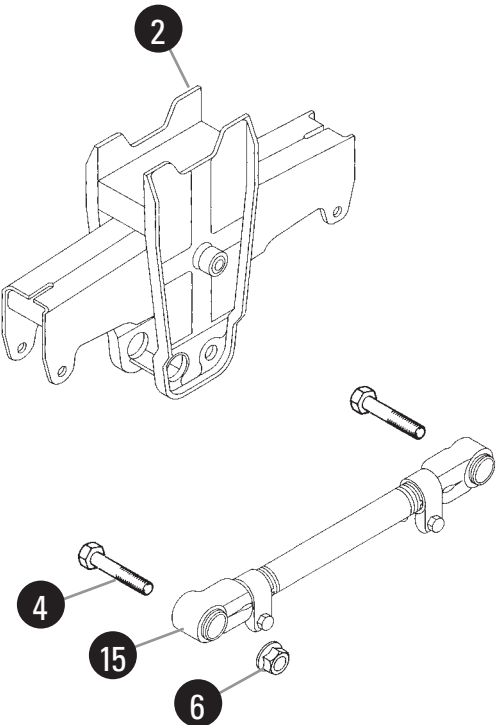
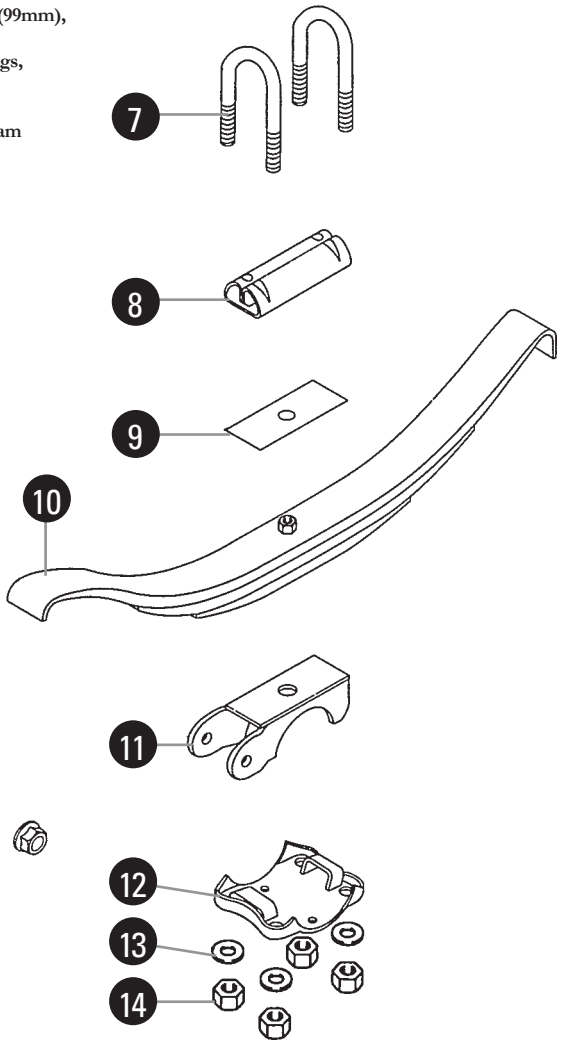
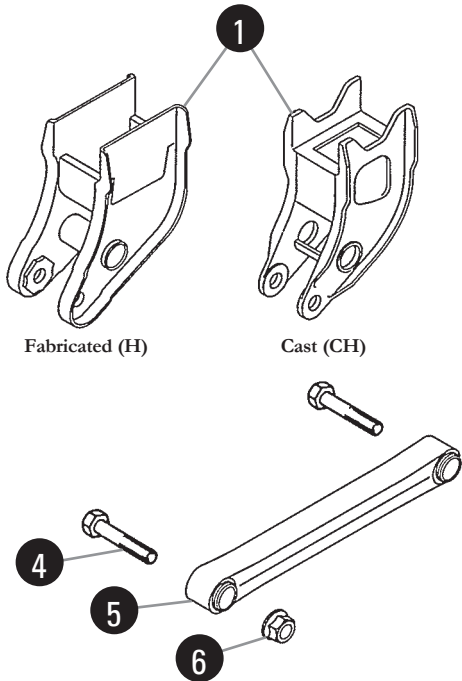
❶ Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf) springs.



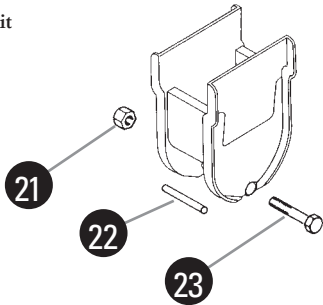
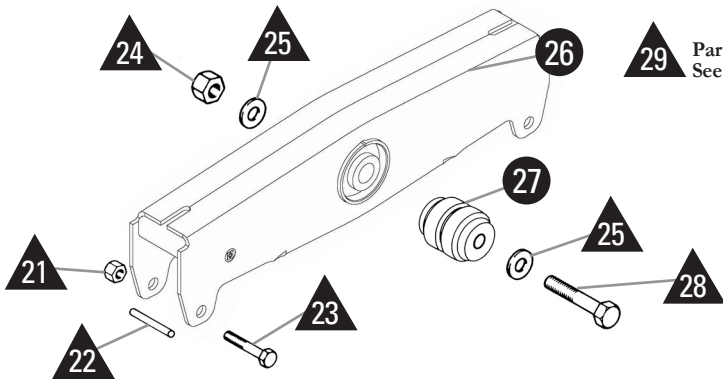
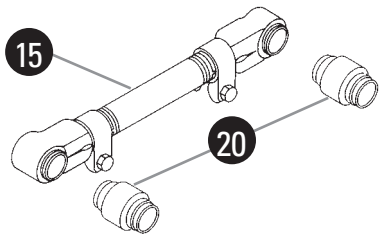
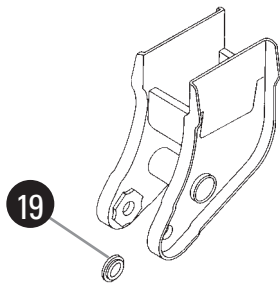
H and CH-9700 TWS 61", 67", 73" & 81"



* Str/mt = 3 1/2" (89mm), Un/mt & Si/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



Parts available as a kit
See item 29 Pg. 13

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	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	710-00
5" Rd. w/ 3/4" Dia. U-Bolts	16297-01
5" x 5" Square	7747-01
4" x 6" Rect.	7746-00

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	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							
Spring Seat	Radius Rod 16398- See Below				Attach Fitting		Spring Seat
Height	61"	67"	73"	81"	(7/8" Dia. U-Bolts)	(3/4" Dia. U-Bolts)	
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	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							
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	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							
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"

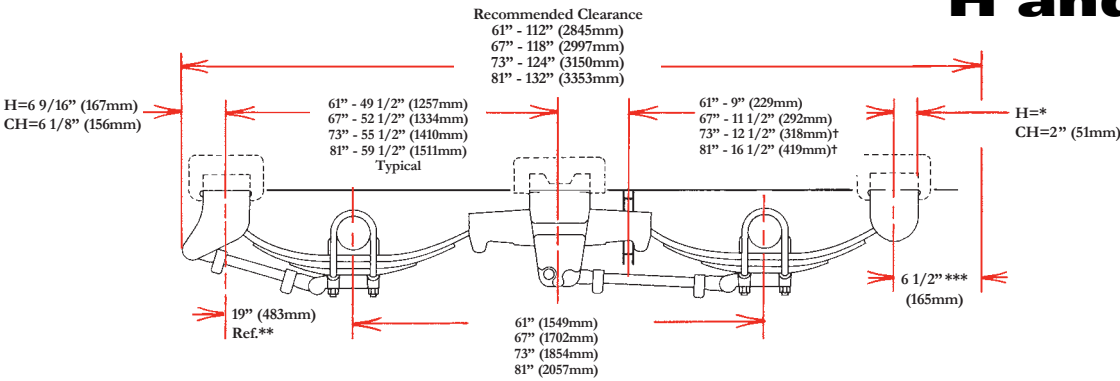
Bill of Materials

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 ❶
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 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 OD x 2 1/4 OD
23	21834-01 or	2	Fabricated Rocker Assembly w/ Rubber Bushing, 61" Axle Spacing
	16168-03 or	2	Fabricated Rocker Assembly w/ Rubber Bushing, 67" Axle Spacing
	21835-01 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 6 5/8" LG, GR5
26	16353-01	1 per Rocker	Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03

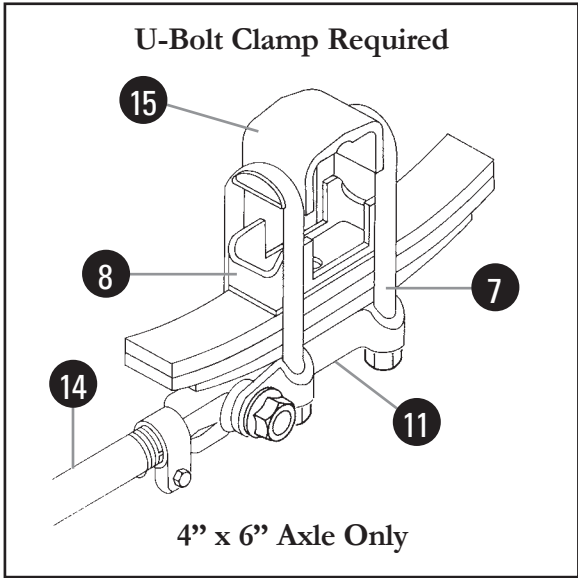
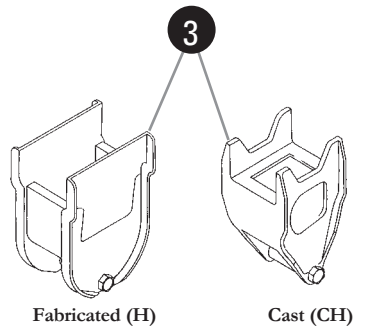
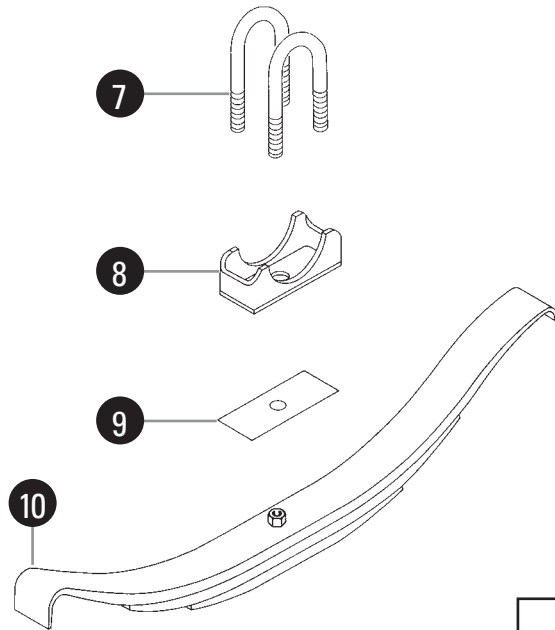
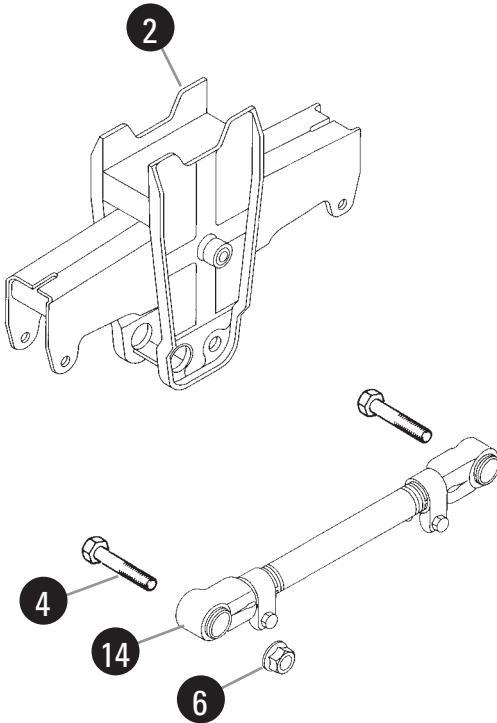
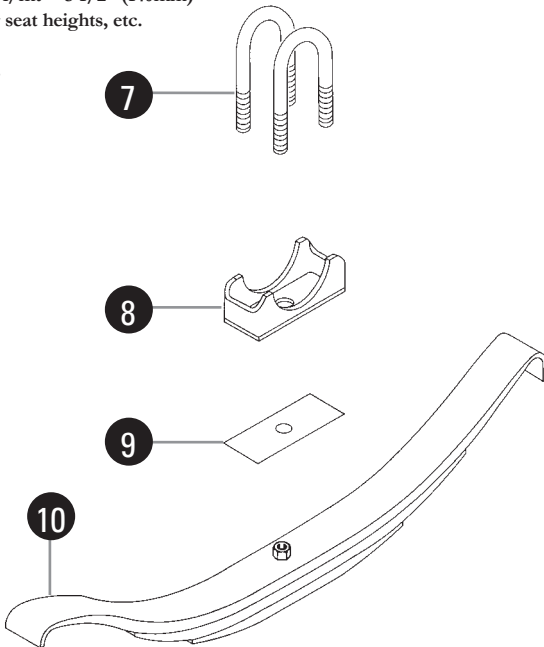
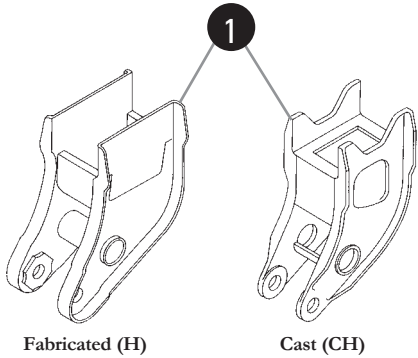
❶ Galvanized liners are required on the tension (top) side of each plate when taper (i.e., single, two and three leaf) springs are utilized. One spring liner per spring (for top leaf) will be shipped loose from Hutchens or spring vendor. Liners are not required on flat plate (seven or eight leaf springs).



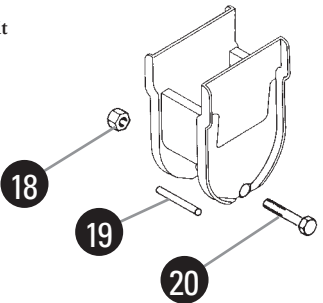
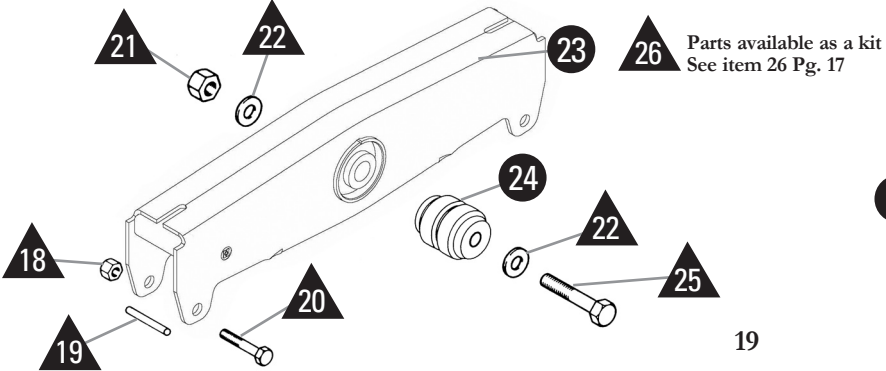
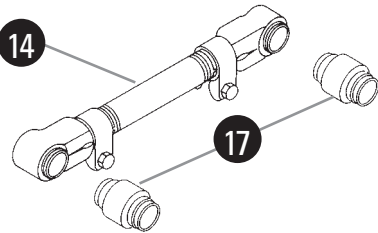
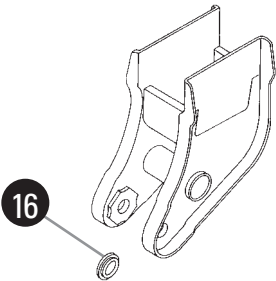
H and CH-9700 US TWS 61", 67", 73" & 81"



* Str/mt = 3 1/2" (89mm), Un/mt & Si/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

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	L05 R-06	L07 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)	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		
Assembly	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	L05 R-06	L07 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 34-00 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 Curbside (RH) Only
8	10562-00	8	Flange Locknut - 1 - 14 UNS, GRF, 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 ❶
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	3404 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 UNF, 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
30	16353-01	1 per Rocker	Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03
31	11664-01	2 per Rocker Guide	Wear Pad - Rocker Guide - 1/4" x 2" x 10"
32	11623-03	4 per Rocker Guide	Cap Screw - 5/16" - 18 UNC, GR8
33	11624-03	4 per Rocker Guide	Hex Lock Nut - 5/16" - 18 UNC, GRC

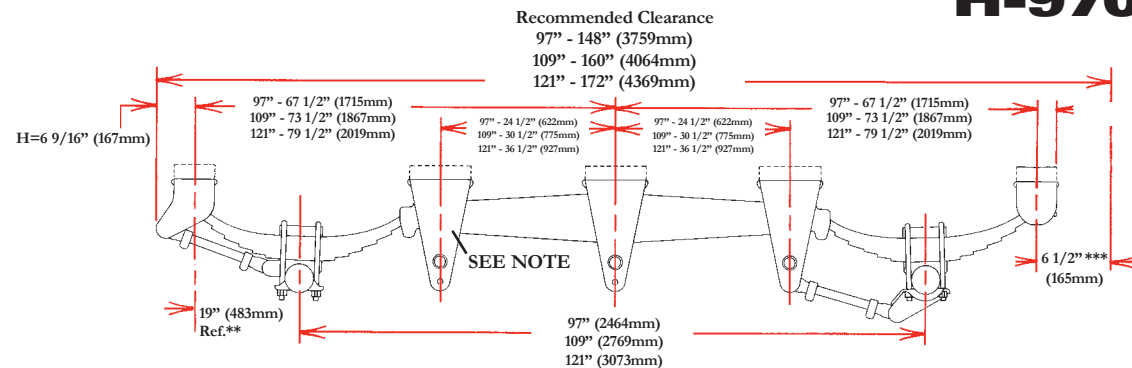
Chart B - Spring Seat

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

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.

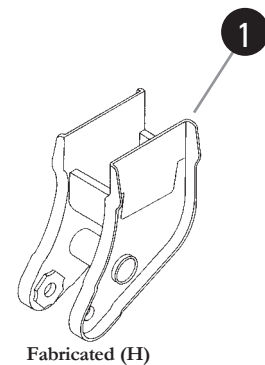


H-9700 TWS 97", 109" & 121"

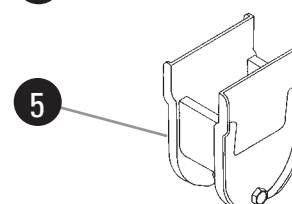
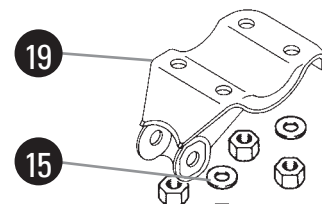
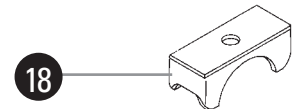
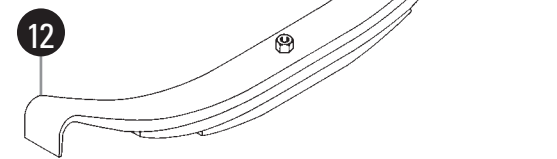
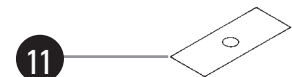
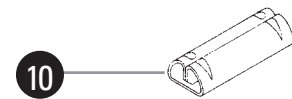
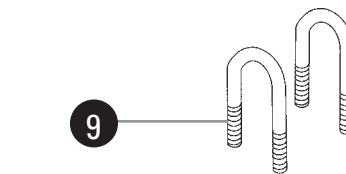
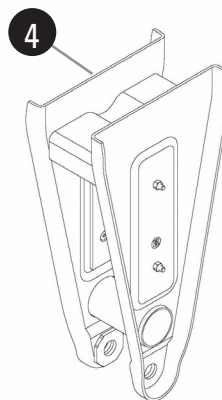
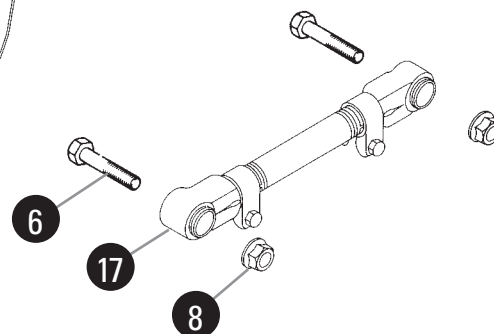
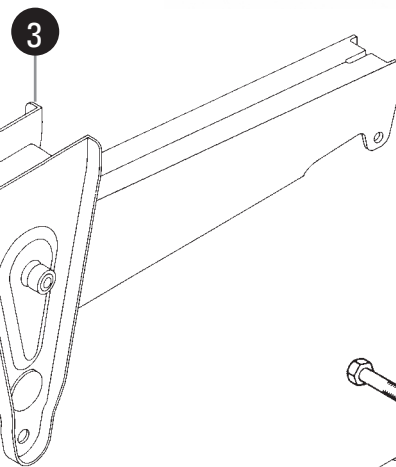
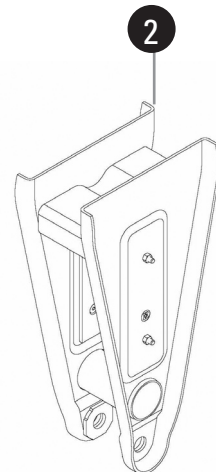
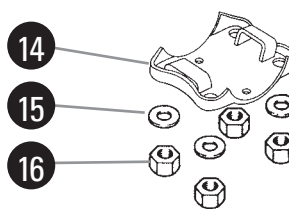
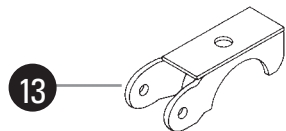
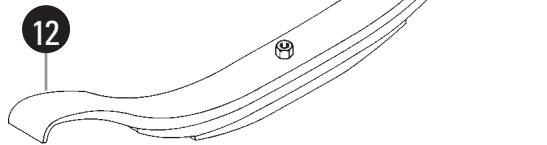
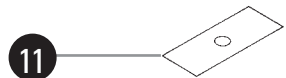
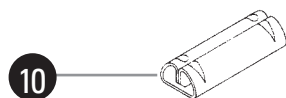
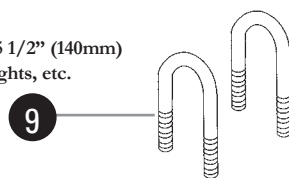
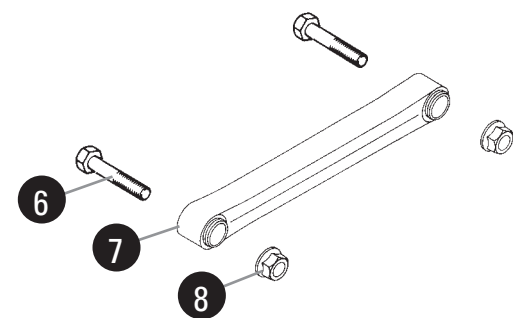


- * Str/mt = 3 1/2" (89mm), Un/mt & Si/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)
- ** Ref: This dimension may vary with changes in springs, spring seat heights, etc.
- *** Recommended spring clearance.

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

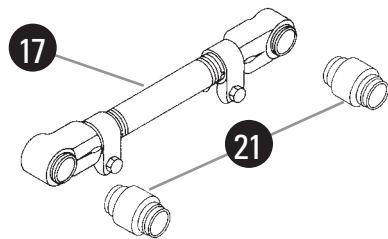
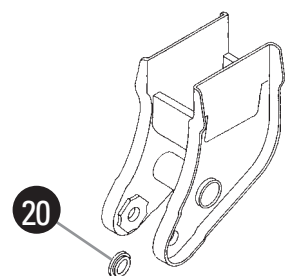


Fabricated (H)

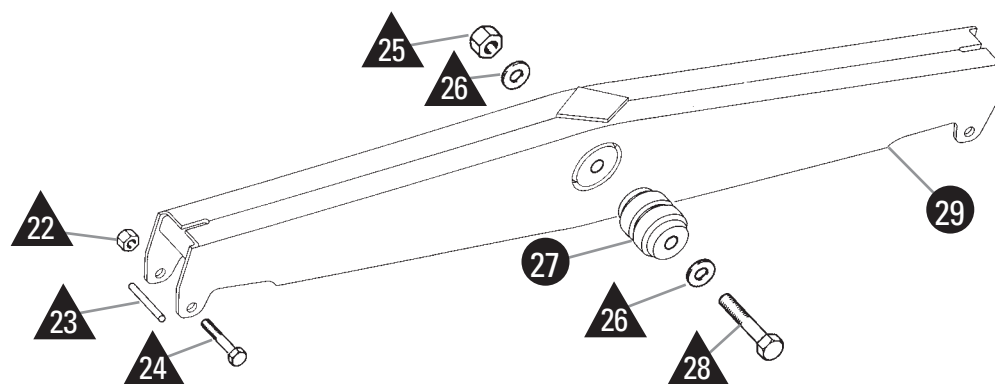


Fabricated (H)

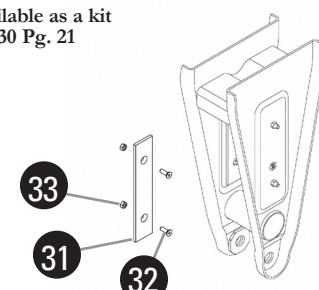
Replacement Parts



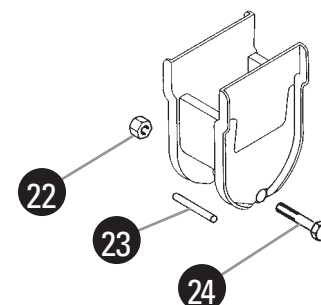
22



30 Parts available as a kit
See item 30 Pg. 21



23



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	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	1629701
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	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			
Attach Fitting			
Seat Height	(w/ Std. 7/8 Dia. U-Bolts)	(w/ Opt. 3/4 Dia. U-Bolts)	Seat
3/4	10775-00	16308-01	22215-01
1 1/4	10775-00	16308-01	22215-02
1 3/4	10775-00	16308-01	22215-03
2 1/4	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		
Attach Fitting		
Seat Height		Seat
3/4	7738-01	22226-01
1 1/4	7738-01	22226-02
1 3/4	7738-01	22226-03
2 1/4	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	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			
Attach Fitting			
Seat Height	Radius Rod		Seat
3/4	16398-04	7738-00	22228-01
1 1/4	16398-04	7738-00	22228-02
1 3/4	16398-04	7738-00	22228-03
2 1/4	16398-04	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, GRF, 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
27	16353-01	1 per Rocker	Rocker Replacement Bolt Kit Consisting of 1 ea. 16150-01, 2 ea. 837-00, 1 ea. 11154-00, 2 ea. 759-00, 2 ea. 756-00 and 2 ea. 37-03

Chart L - Spring Seat

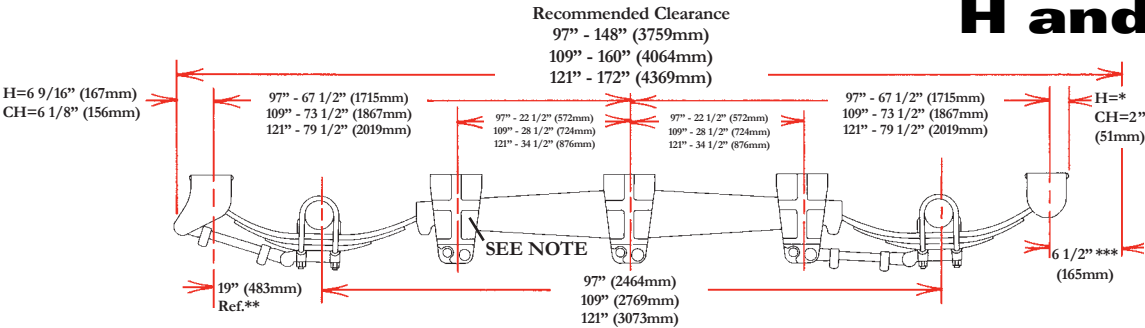
Seat Height	3/4"
5" Round	22215-01
5" x 5" Square	22226-01
4" x 6" Rect.	22228-01

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 US TWS 97", 109" and 121" suspensions is limited to high arch only.

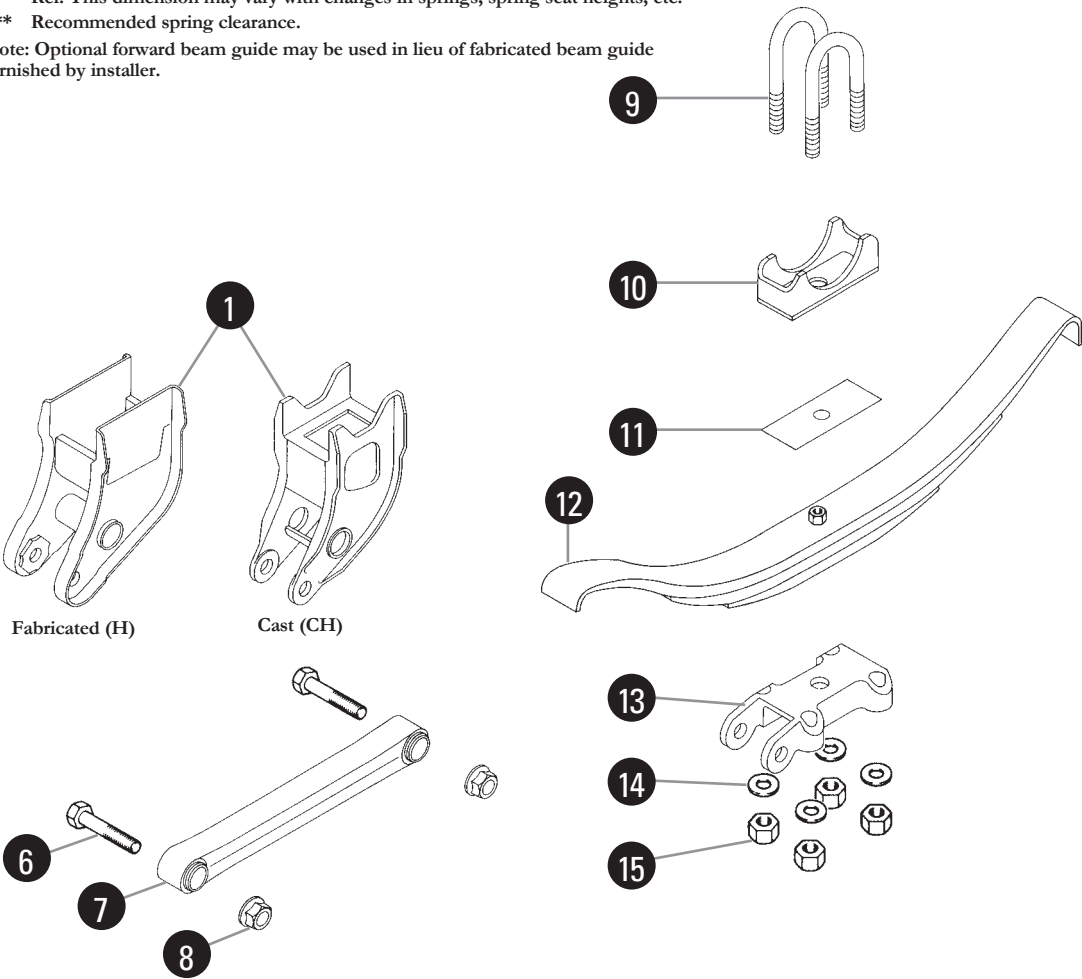


H and CH-9700 US TWS 97", 109" & 121"

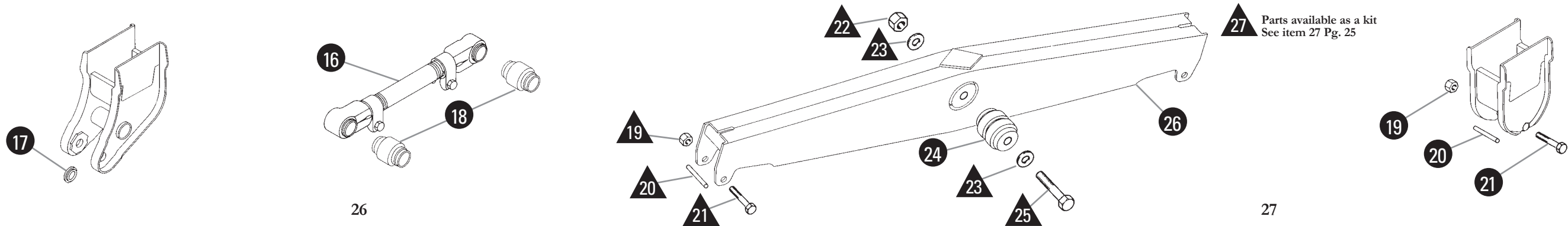


* Str/mt = 3 1/2" (89mm), Un/mt & Si/mt = 3 7/8" (99mm), Fl/mt = 5 1/2" (140mm)
** Ref: This dimension may vary with changes in springs, spring seat heights, etc.
*** Recommended spring clearance.

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					
		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	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
97"	16456-	-01	-03	-03	NA	NA	NA
Center Rocker, Fab. (H) Underslung 97"	16680-	NA	L-01 R-02	L-01 R-02	NA	NA	NA
& Rocker Hgr., Fab. (H) 109"	16457-	-01	-03	-03	NA	NA	NA
Assembly Underslung 109"	16681-	NA	L-01 R-02	L-01 R-02	NA	NA	NA
121"	16458-	-01	-03	-03	NA	NA	NA
Underslung 121"	16682-	NA	L-01 R-02	L-01 R-02	NA	NA	NA
Center Rocker, Fab. (H) Underslung 97"	16680-	NA	L-01 R-02	NA	NA	NA	NA
& Rocker Hgr., Cast (CH) Underslung 109"	16681-	NA	L-01 R-02	L-01 R-02	NA	NA	NA
Assembly Underslung 121"	16682-	NA	L-01 R-02	NA	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 - PL, 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 11 3/4 LG	12, 20, 28
324-01	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
325-01	Spring Assembly - 2 Leaf, Medium Arch	4, Spring Appendix	7816-12	U-Bolt - 7/8 Dia. x 5" Round x 12 3/4 LG	12, 20, 28
326-01	Spring Assembly - 2 Leaf, Low Arch	4, Spring Appendix	7816-13	U-Bolt - 7/8 Dia. x 5" Round x 13 1/4 LG	12, 20, 28
354-00	Spring Assembly - 3 Leaf, High Arch	4, Spring Appendix	7816-14	U-Bolt - 7/8 Dia. x 5" Round x 13 3/4 LG	12, 20
355-00	Spring Assembly - 3 Leaf, Medium Arch	4, Spring Appendix	7816-15	U-Bolt - 7/8 Dia. x 5" Round x 14 1/4 LG	12, 20
356-00	Spring Assembly - 3 Leaf, Low Arch	4, Spring Appendix	7816-16	U-Bolt - 7/8 Dia. x 5" Round x 14 3/4 LG	12, 20
363-00	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
365-00	Spring Assembly - 8 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
365-01	Spring Assembly - 3 Leaf, Low Arch H.D.	4, Spring Appendix	7840-06	U-Bolt - 7/8 Dia. x 5" Square x 11 3/4 LG	12, 20, 28
702-01	Front Spring Hanger - Cast, Str/mt	5, 9, 20, 28	7840-07	U-Bolt - 7/8 Dia. x 5" Square x 12 1/4 LG	12, 20
702-09	Front Spring Hanger - Cast, Fl/mt/wo, Left	5, 9, 20, 28	7840-08	U-Bolt - 7/8 Dia. x 5" Square x 12 3/4 LG	12, 20, 28
702-10	Front Spring Hanger - Cast, Fl/mt/bo, Right	5, 9, 20, 28	7840-09	U-Bolt - 7/8 Dia. x 5" Square x 13 1/4 LG	12, 20, 28
702-11	Front Spring Hanger - Cast, Fl/mt/bo, Left	5, 9, 20, 28	7840-10	U-Bolt - 7/8 Dia. x 5" Square x 13 3/4 LG	12, 20
702-12	Front Spring Hanger - Cast, Fl/mt/bo, Right	5, 9, 20, 28	7840-11	U-Bolt - 7/8 Dia. x 5" Square x 14 1/4 LG	12, 20
706-01	Bottom Plate - Att., Cast	9, 17, 25	7840-12	U-Bolt - 7/8 Dia. x 5" Square x 14 3/4 LG	12, 20
710-00	Bottom Plate - U-Bolt, 5" Round	8, 16, 24	10562-00	Flange Locknut - 1 - 14 UNS, GRF, Phosphate & Oil5,	9, 13, 17, 21, 25
712-01	Rear Spring Hanger - Cast, Str/mt	5, 9, 20, 28	10775-00	Att., Assembly - Radius Rod, 5" Round	8, 16, 24
712-09	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
712-10	Rear Spring Hanger - Cast, Fl/mt/wo, Right	5, 9, 20, 28	11623-03	Cap Screw - 5/16" - 18 UNC, GR8	21
712-11	Rear Spring Hanger - Cast, Fl/mt/bo, Left	5, 9, 20, 28	11624-03	Hex Lock Nut - 5/16" - 18 UNC, GR8	21
712-12	Rear Spring Hanger - Cast, Fl/mt/bo, Right	5, 9, 20, 28	11664-01	Wear Pad - Rocker Guide - 1/4" x 2" x 10"	21
715-00	Non-Adj. Radius Rod w/ Bushing - 19 1/4 LG	5, 9, 13, 17, 21, 25	12834-05	Beam Guide - Cast, Un/mt, Widespread,	28
719-02	Radius Rod Bolt - Hex Bolt - 1 - 14 UNS x 5"	5, 9, 13, 17, 21, 25		US 97 & 109	
722-00	Radius Rod Bushing - 3 LG	5, 9, 13, 17, 21, 25	12921-05	Beam Guide - Cast, Un/mt, Widespread, US 121	28
751-01	Spring Assembly - 7 Leaf, Low Arch	4, Spring Appendix	16150-01	Hex Cap Screw - 1 1/8 x 7 x 6 5/8 LG, GR5	5, 9, 13, 17, 21, 25
751-05	Spring Assembly - 7 Leaf, High Arch	4, Spring Appendix	16168-03	Rocker Assembly - Fab. w/ Rubber Bushing, 67 A/C	13, 17
751-06	Spring Assembly - 7 Leaf, High Arch, Single Axle	4, Spring Appendix	16168-07	Rocker Assembly - Fab. w/ Rubber Bushing, 81 A/C	13, 17
752-01	Spring Assembly - 6 Leaf, Low Arch H.D.	4, Spring Appendix	16168-09	Rocker Assembly - Fab. w/ Rubber Bushing, 97 A/C	21, 25
752-05	Spring Assembly - 8 Leaf, High Arch H.D.	4, Spring Appendix	16168-10	Rocker Assembly - Fab. w/ Rubber Bushing, 109 A/C	21, 25
752-06	Spring Assembly - 8 Leaf, High Arch H.D.	4, Spring Appendix	16168-13	Rocker Assembly - Fab. w/ Rubber Bushing, 121 A/C	21, 25
	Single Axle & Widespread		16180-01	Rocker Hanger - Cast, Str/mt, 54.5 - 81 A/C	5, 9, 20
756-00	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
759-00	Hex Bolt - 5/8" - 18 UNF x 4 1/2", GR2	5, 9, 13, 17, 21, 25	16183-03	Rocker Hanger - Cast, Fl/mt/bo, Left, 54.5 - 81 A/C	5, 9, 20
817-00	Washer - 1/8" x 13/16 ID x 1 1/2 OD	5, 13, 21	16183-04	Rocker Hanger - Cast, Fl/mt/bo, Right, 54.5 - 81 A/C	5, 9, 20
837-00	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
7040-06	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
7040-07	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
7040-08	U-Bolt - 7/8 Dia. x 3" Round x 10 3/4 LG	8, 12, 16, 20, 24	16291-03	Front Spring Hanger - Cast, Un/mt & Si/mt, Left	5, 9, 20, 28
7040-09	U-Bolt - 7/8 Dia. x 3" Round x 11 1/4 LG	8, 12, 16, 20, 24	16291-04	Front Spring Hanger - Cast, Un/mt & Si/mt, Right	5, 9, 20, 28
7040-10	U-Bolt - 7/8 Dia. x 3" Round x 11 3/4 LG	8, 12, 16, 20, 24, 28	16293-01	Rear Spring Hanger - Cast, Un/mt & Si/mt, Left	5, 9, 20, 28
7040-11	U-Bolt - 7/8 Dia. x 3" Round x 12 1/4 LG	8, 12, 16, 20, 24	16293-02	Rear Spring Hanger - Cast, Un/mt & Si/mt, Right	5, 9, 20, 28
7040-12	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
7040-13	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
7040-14	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
7040-15	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
7040-16	U-Bolt - 7/8 Dia. x 3" Round x 14 3/4 LG	8, 12, 16, 20, 24	16300-09	U-Bolt - 3/4 Dia. x 3" Round x 11 1/4 LG	8, 16, 24
7040-17	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
7040-18	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
7040-19	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
7040-20	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
7040-21	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
7040-22	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
7040-23	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/bo, Left	5, 9, 20, 28	16303-01	Hex Nut - 3/4 - 16 UNF, GR8	5, 13, 21
7701-08	Front Spring Hanger - Fl/mt/bo, 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	16353-01	Rocker Replacement Bolt Kit	5, 9, 13, 17, 21, 25
7703-06	Rear Spring Hanger - Fl/mt/wo, Right	5, 9, 20, 28	16398-04	Adj. Radius Rod w/ Bushing &	5, 9, 13, 17, 21, 25
7703-07	Rear Spring Hanger - Fl/mt/bo, Left	5, 9, 20, 28		NEVER-SEEZ - 19 1/4 LG	
7703-08	Rear Spring Hanger - Fl/mt/bo, Right	5, 9, 20, 28	16398-05	Adj. Radius Rod w/ Bushing &	5, 9
7707-13	Beam Guide - Str/mt, Widespread, Att.	28		NEVER-SEEZ - 20 1/4 LG	
7707-14	Beam Guide - Un/mt, Widespread, Att.	28	16398-07	Adj. Radius Rod w/ Bushing &	5, 8, 9
7717-01	Washer Bushing	5, 9, 13, 17, 21, 25		NEVER-SEEZ - 22 1/4 LG	
7738-00	Att. Fitting - Radius Rod, 4" x 6" Rect.	8, 16, 24	16398-08	Adj. Radius Rod w/ Bushing &	8, 13, 17
7738-01	Att. Fitting - Radius Rod, 5" x 5" Square	8, 16, 24		NEVER-SEEZ - 23 1/2 LG	
7746-00	Bottom Plate - 4" x 6" Rect.	8, 16, 24	16398-09	Adj. Radius Rod w/ Bushing &	16
				NEVER-SEEZ - 25 LG	

Part No.	Description	Pg. #	Part No.	Description	Pg. #
16398-10	Adj. Radius Rod w/ Bushing & NEVER-SEEZ - 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-SEEZ - 28 LG	16	16681-02	Rocker & Hanger Assy. - Un/mt, Right, US 109 A/C	28
16398-12	Adj. Radius Rod w/ Bushing & NEVER-SEEZ - 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-SEEZ - 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-SEEZ - 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-SEEZ - 34 3/4 LG	16	16868-01	Top Plate - Roll Formed	5, 13, 21
16398-17	Adj. Radius Rod w/ Bushing & NEVER-SEEZ - 17 LG	21, 25	17160-01	Rocker & Hanger Assy. - Str/mt, Left, 53.5/54.5 A/C	5, 9
16450-01	Rocker & Hanger Assy. - Str/mt, Left, 57.5 A/C	5, 9	17160-02	Rocker & Hanger Assy. - Str/mt, Right, 53.5/54.5 A/C	5, 9
16450-02	Rocker & Hanger Assy. - Str/mt, Right, 57.5 A/C	5, 9	17160-03	Rocker & Hanger Assy. - Un/mt, Left, 53.5/54.5 A/C	5, 9
16450-03	Rocker & Hanger Assy. - Un/mt, Left, 57.5 A/C	5, 9	17160-04	Rocker & Hanger Assy. - Un/mt, Right, 53.5/54.5 A/C	5, 9
16450-04	Rocker & Hanger Assy. - Un/mt, Right, 57.5 A/C	5, 9	17160-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 53.5/54.5 A/C	5, 9
16450-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 57.5 A/C	5, 9	17160-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 53.5/54.5 A/C	5, 9
16450-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 57.5 A/C	5, 9	17160-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 53.5/54.5 A/C	5, 9
16450-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 57.5 A/C	5, 9	17160-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 53.5/54.5 A/C	5, 9
16450-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 57.5 A/C	5, 9	17350-02	Galvanized Liner - .05 x 3 x 7 1/2 w/ Hole	5, 9, 13, 17, 21, 25
16451-01	Rocker & Hanger Assy. - Str/mt, Left, 61 A/C	20	17882-01	Spring Assembly - 2 Leaf, 2 Stage, Medium Arch	4, Spring Appendix
16451-02	Rocker & Hanger Assy. - Str/mt, Right, 61 A/C	20		Multi Axle & Widespread	
16451-03	Rocker & Hanger Assy. - Un/mt & Si/mt, Left, 61 A/C	20	18723-01	Rocker Bushing Assembly - Rubber	5, 9, 13, 17, 21, 25
16451-04	Rocker & Hanger Assy. - Un/mt & Si/mt, Right, 61 A/C	20	19360-01	Spring Seat - Att., 5" Round, 3/4 High	5, 13, 21
16451-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 61 A/C	20	19360-02	Spring Seat - Att., 5" Round, 1 1/4 High	5, 13, 21
16451-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 61 A/C	20	19360-03	Spring Seat - Att., 5" Round, 1 3/4 High	5, 13, 21
16451-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 61 A/C	20	19360-04	Spring Seat - Att., 5" Round, 2 1/4 High	5, 13, 21
16451-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 61 A/C	20	19360-05	Spring Seat - Att., 5" Round, 2 3/4 High	5, 13, 21
16452-01	Rocker & Hanger Assy. - Str/mt, Left, 67 A/C	20	19360-06	Spring Seat - Att., 5" Round, 3 1/4 High	5, 13, 21
16452-02	Rocker & Hanger Assy. - Str/mt, Right, 67 A/C	20	19360-07	Spring Seat - Att., 5" Round, 3 3/4 High	5, 13, 21
16452-03	Rocker & Hanger Assy. - Un/mt & Si/mt, Left, 67 A/C	20	19360-08	Spring Seat - Att., 5" Round, 4 1/4 High	5, 13, 21
16452-04	Rocker & Hanger Assy. - Un/mt & Si/mt, Right, 67 A/C	20	19360-09	Spring Seat - Att., 5" Round, 4 3/4 High	5, 13, 21
16452-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 67 A/C	20	19364-01	Spring Seat - Att., 4" x 6" Rect., 3/4 High	5, 13, 21
16452-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 67 A/C	20	19364-02	Spring Seat - Att., 4" x 6" Rect., 1 1/4 High	5, 13, 21
16452-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 67 A/C	20	19364-03	Spring Seat - Att., 4" x 6" Rect., 1 3/4 High	5, 13, 21
16452-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 67 A/C	20	19364-04	Spring Seat - Att., 4" x 6" Rect., 2 1/4 High	5, 13, 21
16453-01	Rocker & Hanger Assy. - Str/mt, Left, 73 A/C	20	19364-05	Spring Seat - Att., 4" x 6" Rect., 2 3/4 High	5, 13, 21
16453-02	Rocker & Hanger Assy. - Str/mt, Right, 73 A/C	20	19364-06	Spring Seat - Att., 4" x 6" Rect., 3 1/4 High	5, 13, 21
16453-03	Rocker & Hanger Assy. - Un/mt & Si/mt, Left, 73 A/C	20	19364-07	Spring Seat - Att., 4" x 6" Rect., 3 3/4 High	5, 13, 21
16453-04	Rocker & Hanger Assy. - Un/mt & Si/mt, Right, 73 A/C	20	19364-08	Spring Seat - Att., 4" x 6" Rect., 4 1/4 High	5, 13, 21
16453-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 73 A/C	20	19364-09	Spring Seat - Att., 4" x 6" Rect., 4 3/4 High	5, 13, 21
16453-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 73 A/C	20	19365-01	Spring Seat - Att., 5" x 5" Square, 3/4 High	5, 13, 21
16453-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 73 A/C	20	19365-02	Spring Seat - Att., 5" x 5" Square, 1 1/4 High	5, 13, 21
16453-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 73 A/C	20	19365-03	Spring Seat - Att., 5" x 5" Square, 1 3/4 High	5, 13, 21
16454-01	Rocker & Hanger Assy. - Str/mt, Left, 81 A/C	20	19365-04	Spring Seat - Att., 5" x 5" Square, 2 1/4 High	5, 13, 21
16454-02	Rocker & Hanger Assy. - Str/mt, Right, 81 A/C	20	19365-05	Spring Seat - Att., 5" x 5" Square, 2 3/4 High	5, 13, 21
16454-03	Rocker & Hanger Assy. - Un/mt & Si/mt, Left, 81 A/C	20	19365-06	Spring Seat - Att., 5" x 5" Square, 3 1/4 High	5, 13, 21
16454-04	Rocker & Hanger Assy. - Un/mt & Si/mt, Right, 81 A/C	20	19365-07	Spring Seat - Att., 5" x 5" Square, 3 3/4 High	5, 13, 21
16454-07	Rocker & Hanger Assy. - Fl/mt/bo, Left, 81 A/C	20	19365-08	Spring Seat - Att., 5" x 5" Square, 4 1/4 High	5, 13, 21
16454-08	Rocker & Hanger Assy. - Fl/mt/bo, Right, 81 A/C	20	19365-09	Spring Seat - Att., 5" x 5" Square, 4 3/4 High	5, 13, 21
16454-09	Rocker & Hanger Assy. - Fl/mt/wo, Left, 81 A/C	20	20728-01	Front Spring Hanger - Un/mt	5, 9, 20, 28
16454-10	Rocker & Hanger Assy. - Fl/mt/wo, Right, 81 A/C	20	20729-01	Front Spring Hanger - Si/mt, Left	5, 9, 20, 28
16456-01	Rocker & Hanger Assy. - Fab., Str/mt, 97 A/C	28	20730-01	Front Spring Hanger - Si/mt, Right	5, 9, 20, 28
16456-03	Rocker & Hanger Assy. - Fab., Un/mt, 97 A/C	28	20732-01	Rear Spring Hanger - Un/mt	5, 9, 20, 28
16457-01	Rocker & Hanger Assy. - Fab., Str/mt, 109 A/C	28	20733-01	Rear Spring Hanger - Si/mt, Left	5, 9, 20, 28
16457-03	Rocker & Hanger Assy. - Fab., Un/mt, 109 A/C	28	20734-01	Rear Spring Hanger - Si/mt, Right	5, 9, 20, 28
16458-01	Rocker & Hanger Assy. - Fab., Str/mt, 121 A/C	28	21833-01	Rocker Assembly - Fab. w/Rubber Bushing, 57.5 A/C	5, 9
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16481-01	Front Spring Hanger - Un/mt, Topless	5, 9, 20, 28	21835-01	Rocker Assembly - Fab. w/Rubber Busing, 73 A/C	13, 17
16483-01	Rear Spring Hanger - Un/mt, Topless	5, 9, 20, 28	22215-01	Spring Seat - 5" Round, 3/4 High	8, 12, 16, 20, 24, 25
16542-03	Rocker Hanger - Cast, Un/mt, US 121 A/C	28	22215-02	Spring Seat - 5" Round, 1 1/4 High	8, 12, 16, 20, 24
16543-03	Rocker Hanger - Cast, Un/mt, US 97 & 109 A/C	28	22215-03	Spring Seat - 5" Round, 1 3/4 High	8, 12, 16, 20, 24
16680-01	Rocker & Hanger Assy. - Un/mt, Left, US 97 A/C	28	22215-04	Spring Seat - 5" Round, 2 1/4 High	8, 12, 16, 20, 24
16680-02	Rocker & Hanger Assy. - Un/mt, Right, US 97 A/C	28	22226-01	Spring Seat - 5" x 5" Square, 3/4 High	8, 12, 16, 20, 24, 25
			22226-02	Spring Seat - 5" x 5" Square, 1 1/4 High	8, 12, 16, 20, 24
			22226-03	Spring Seat - 5" x 5" Square, 1 3/4 High	8, 12, 16, 20, 24
			22226-04	Spring Seat - 5" x 5" Square, 2 1/4 High	8, 12, 16, 20, 24
			22228-01	Spring Seat - 4" x 6" Rect., 3/4 High	8, 12, 16, 20, 24, 25
			22228-02	Spring Seat - 4" x 6" Rect., 1 1/4 High	8, 12, 16, 20, 24
			22228-03	Spring Seat - 4" x 6" Rect., 1 3/4 High	8, 12, 16, 20, 24
			22228-04	Spring Seat - 4" x 6" Rect., 2 1/4 High	8, 12, 16, 20, 24
			24820-01	Rocker Assembly - Fab. w/Rubber Bushing, 54.5 A/C	5, 9



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