

Dreadnought Single Pivot Bogie Manual

For Your Trailer Axle Suspension Needs Call York :

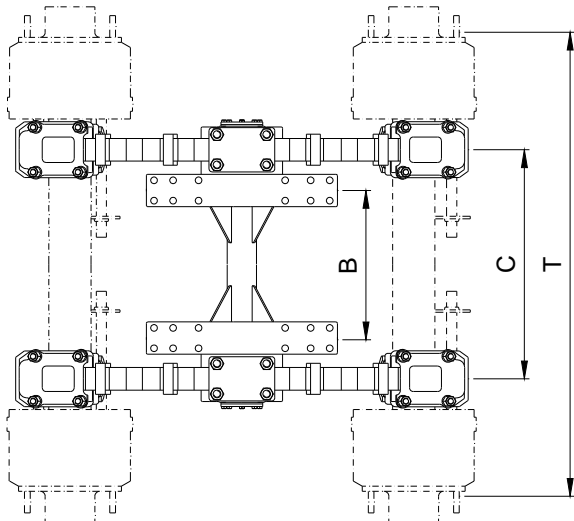
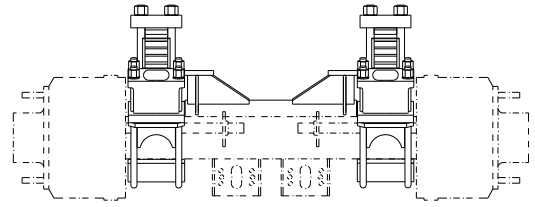
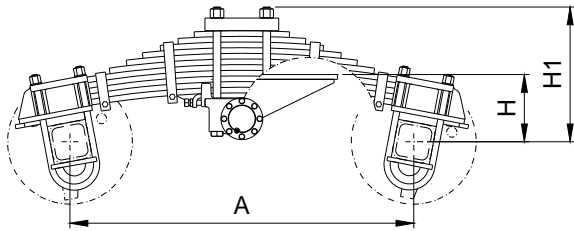
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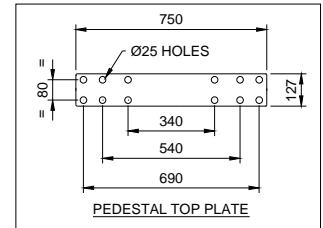
Distributors

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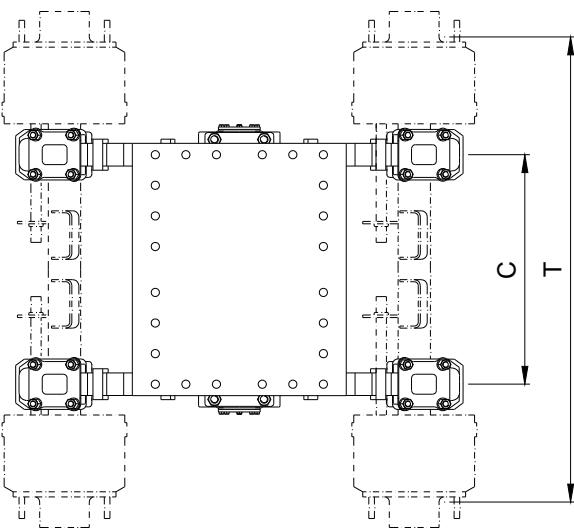
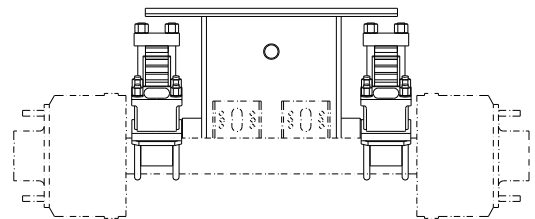
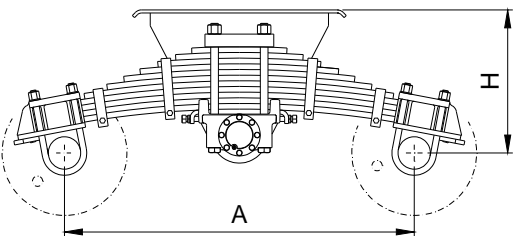
DN7 Standard Layout



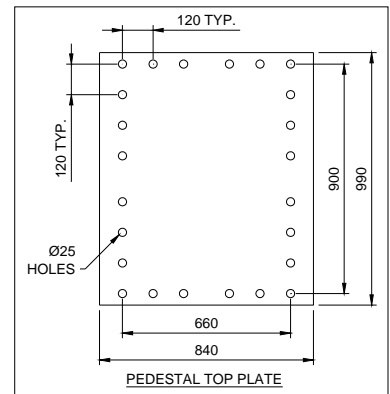
Low Mount



Dimensions fit with 5" round axle						
'T'	'C'	'B'	'A'	'H'	'H1'	
DN7	1850	900	580	1430	245	510
Dimensions fit with 6" square axle						
'T'	'C'	'B'	'A'	'H'	'H1'	
DN7S	1850	900	580	1410	265	530



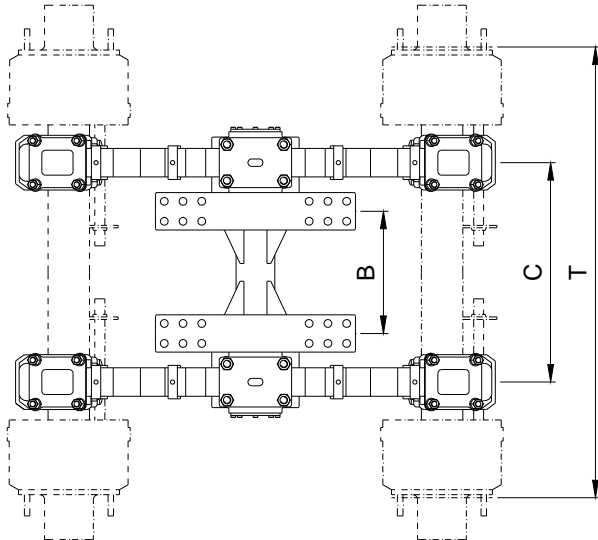
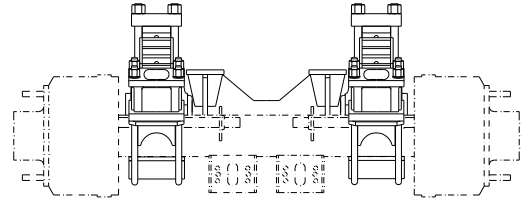
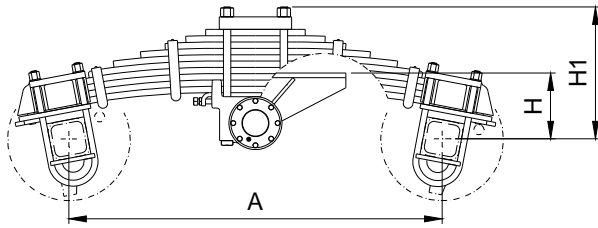
High Mount



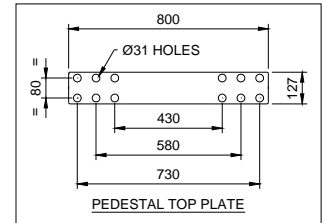
Dimensions fit with 5" round axle				
'T'	'C'	'A'	'H'	
DNH7	1850	900	1430	560
Dimensions fit with 6" square axle				
'T'	'C'	'A'	'H'	
DNH7S	1850	900	1410	570

T = Axle Track Length (Standard); C = Spring Centre (Standard); B = Stool Centre (Standard);
A = Laden Spacing (Estimated); H = Mounting Height; H1 = Spring Height

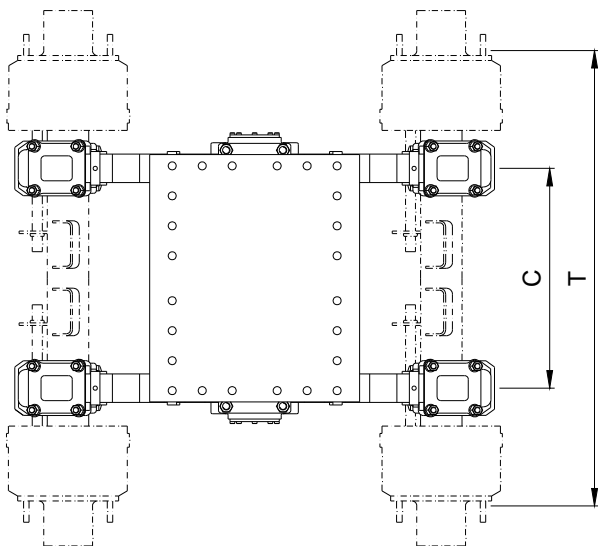
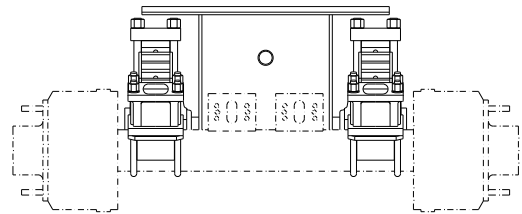
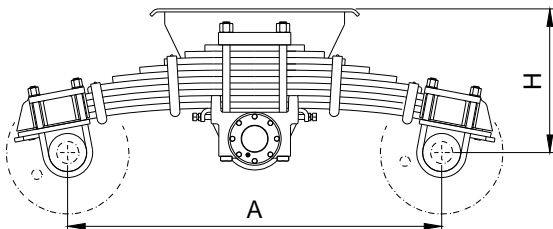
DN8 Standard Layout



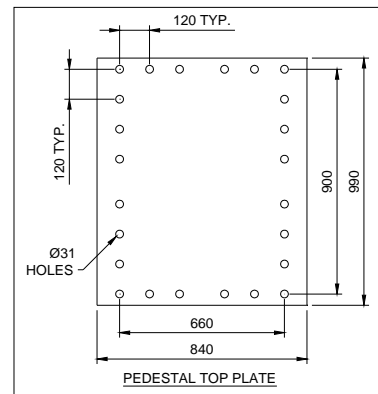
Low Mount



Dimensions fit with 6" round axle						
'T'	'C'	'B'	'A'	'H'	'H1'	
DN8	1850	880	490	1550	255	520
Dimensions fit with 6" square axle						
'T'	'C'	'B'	'A'	'H'	'H1'	
DN8S	1850	880	490	1550	265	530



High Mount



Dimensions fit with 6" round axle				
'T'	'C'	'A'	'H'	
DNH8	1850	880	1550	570
Dimensions fit with 6" square axle				
'T'	'C'	'A'	'H'	
DNH8S	1850	880	1550	570

T = Axle Track Length (Standard); C = Spring Centre (Standard); B = Stool Centre (Standard);
A = Laden Spacing (Estimated); H = Mounting Height; H1 = Spring Height

Axles and Bogie Capacity

DN Model		Axle Capacity @ Highway	Tyre ¹⁾ Size	DN Capacity @ 80km/h (Highway)	DN Capacity @ 40km/h (Off Road)
DN7 Low Mount	DN7	5" Round @ 12 Ton	10.00R20	24 Ton	20 Ton
	DN7S	6" Square @ 12 Ton	10.00RR20	24 Ton	20 Ton
	DN7	5" Round @ 15 Ton	12.00R20	30 Ton	24 Ton
	DN7S	6" Square @ 16 Ton	12.00R20	30 Ton	24 Ton
DN7 High Mount	DNH7	5" Round @ 12 Ton	10.00R20	24 Ton	20 Ton
	DNH7S	6" Square @ 12 Ton	10.00RR20	24 Ton	20 Ton
	DNH7	5" Round @ 15 Ton	12.00R20	30 Ton	24 Ton
	DNH7S	6" Square @ 16 Ton	12.00R20	30 Ton	24 Ton
DN8 Low Mount	DN8S	6" Square @ 16 Ton	12.00R24	32 Ton	28 Ton
	DN8	6" Round @ 17.5 Ton	12.00R24	35 Ton	32 Ton
	DN8	6" Round @ 20 Ton	12.00R24	40 Ton	32 Ton
DN8 High Mount	DNH8S	6" Square @ 16 Ton	12.00R24	32 Ton	28 Ton
	DNH8	6" Round @ 17.5 Ton	12.00R24	35 Ton	32 Ton
	DNH8	6" Round @ 20 Ton	12.00R24	40 Ton	32 Ton

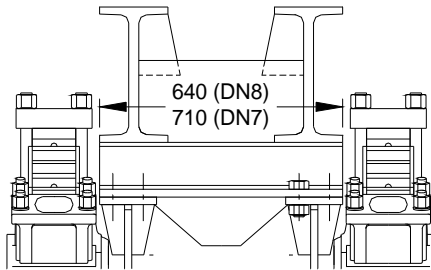
Note 1: Please consult York Engineering if bigger tyre size required.

Bogie Installation

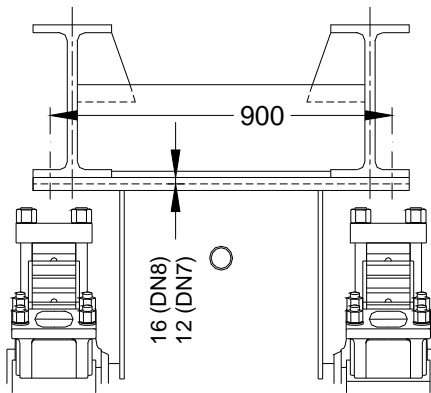
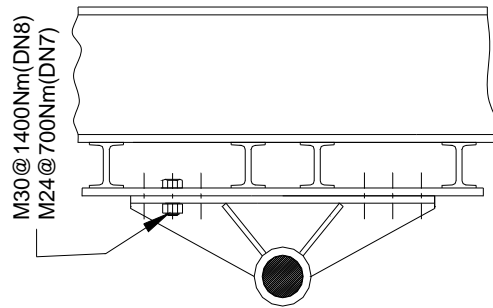
Below are typical chassis structures and installations of DN Low Mount and DN high Mount.

Fit DN bogies to trailer chassis with 4 bolts and nuts at 4 corners of mounting pedestal, tighten nuts to 200Nm for axle alignment (see below).

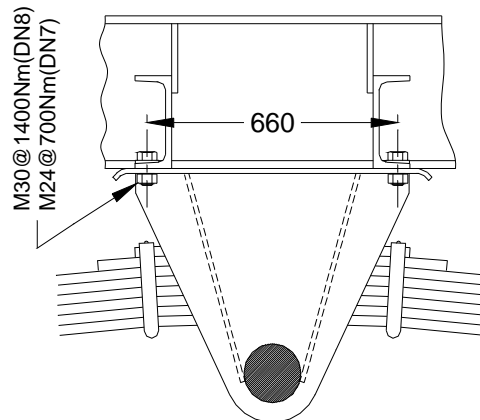
After axle alignment, fit rest of bolts and nuts and tighten all nuts to torque required.



DN Low Mount



DN High Mount



Axle Alignment

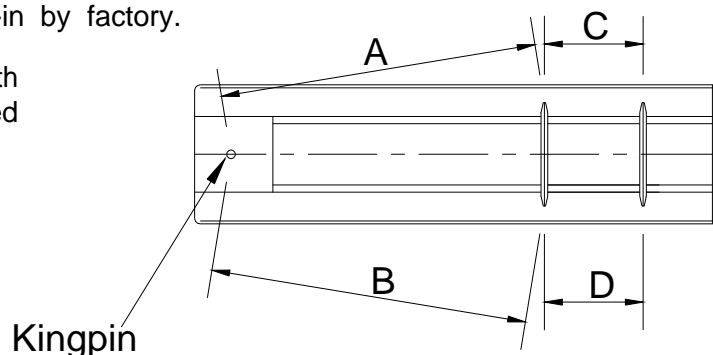
Measure from the centre of the kingpin to the centre of each end of the front axle and adjust as necessary (by using a hide mallet or Porta power) until the dimensions A and B are equal. After alignment, weld metal blocks around the pedestals to fix position of DN mounting plate against trailer chassis beam.

Alignment of the rear axle (axles) is built-in by factory.

NOTE: Alignment can also be achieved with an optical device or laser system designed specifically for this purpose.

$$A=B \pm 2 \text{ mm}$$

$$C=D \pm 2 \text{ mm}$$



Final Inspection

A visual inspection of the bogie after installation and assembly should be carried out to ensure that all components are correctly located and seated, as incorrect location or misalignment of the components will greatly reduce the service life of the bogie.

Servicing Intervals

First Service - 500 km.

Check all torque settings with torque wrench (Important).

Every 10,000 km or every 6 weeks.

Check all torque settings (Especially u-bolt and pivot bolts). Lift trailer to take pressure off the bearing and grease main pivot bush using EP2 or Mobil HP222 until fresh grease emerges. Under extreme conditions, lubricate with more frequency.

Every 100,000 km or Annually.

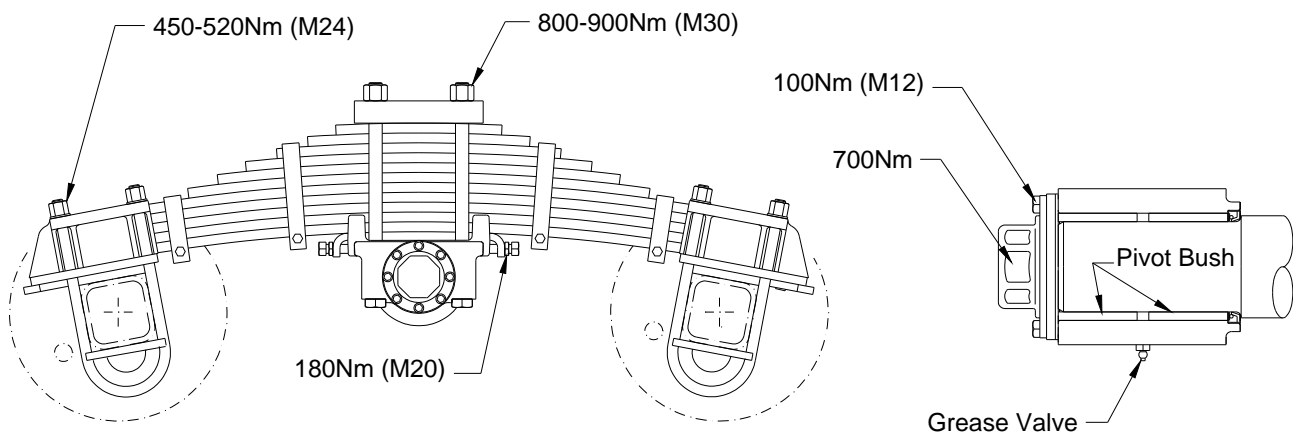
Check and lubricate as for 10,000 km service.

Check the pivot bushes for wear or deterioration and replace as necessary.

Check the leaf springs for wear, cracks or corrosion and replace as necessary.

Inspect the mounting brackets, spring hoods, spring hood rubber and u-bolt for wear or deterioration and replace any suspect parts as necessary (see below for servicing procedure).

Check tyre wear and the axle alignment as necessary. Axle alignment must be checked whenever severe kerbing, accident damage or spring have been replaced during servicing.



Servicing Procedure

Jack up the trailer. Remove thrust plate and thrust bearing and check the pivot bearings for play by levering the cross shaft and the spring. Bearings should be a tight fit and should be renewed if play is suspected.

New bushes are fitted from each side of the pivot block and should be flushed with the pivot block outer recess, a central gap must exist between the bushes to permit grease flow. Apply grease through the pivot block grease valve until it extrudes from the grease seal.

Grease seal must be fitted metal face outwards and the inner face of the thrust plate should be greased before fitting.

Servicing Procedure - Continued

The spring hoods and rubbers should be visually checked for wear or damage and components replaced where necessary.

Inspect the leaf spring for wear, cracks or corrosion. Clean the leaf spring thoroughly and replace any suspect leaves.

Spring seat welding (in the case of axle replacement)

Fit spring seat firmly seat on axle beam, fillet weld (16mm) around as shown on Fig. 1. Please note NO WELD on the top of axle beam (120 degree range as shown).

Assembly springs onto axles (in the case of axle or spring replacement)

Step 1

After axles are aligned properly, fit shear plate (Item 28) and tack weld it onto spring seat (Item 10).

Full weld shear plate by 15mm fillet weld.

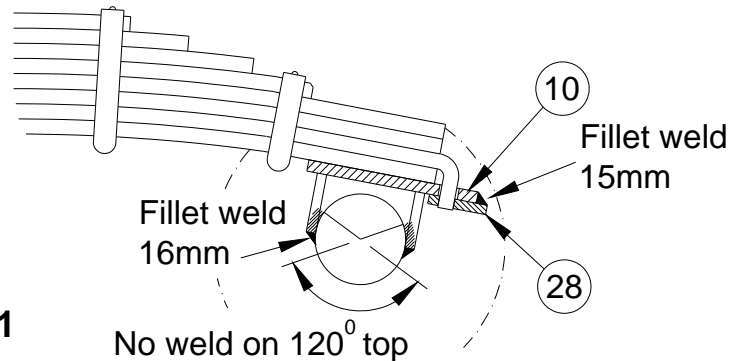


Fig. 1

Step 2

Fit hood rubber (Item 23) and spring hood (Item 1), fit and tighten U-bolt.

U-bolt nut torque setting: 450Nm.

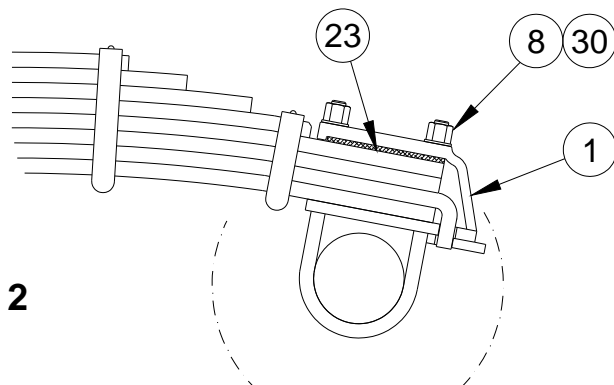


Fig. 2

Step 3

Spring hood (Item 1) should seat firmly onto spring seat (Item 10). No gap is allowed at 4 corners between spring hood and spring seat.

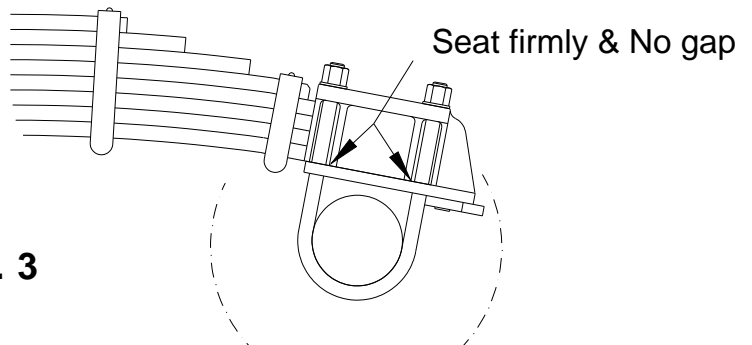
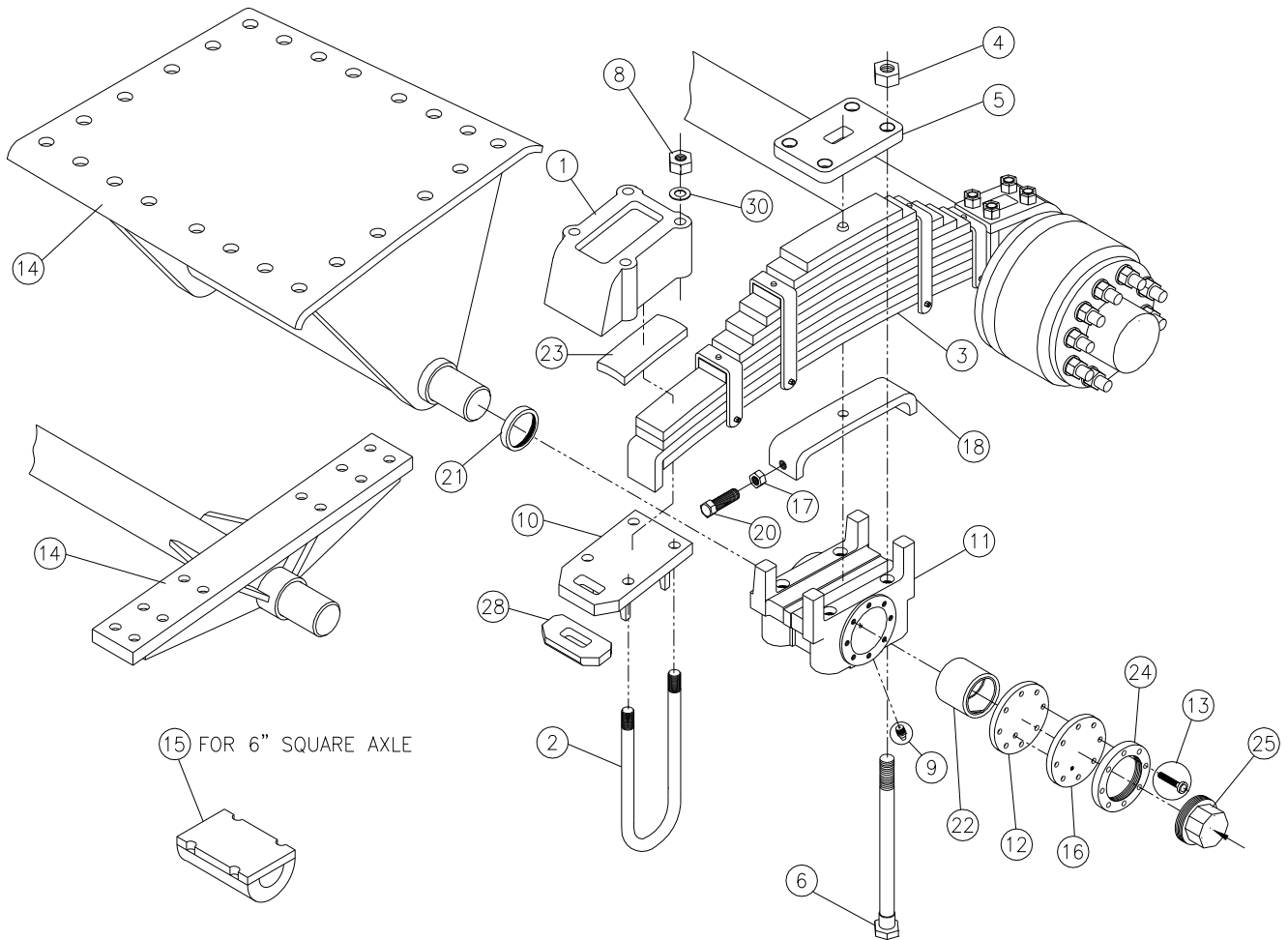


Fig. 3

Bogie Component



DREADNOUGHT SUSPENSION PART LIST

Item No.	Description	Type							
		DN7	DN7S	DNH7	DNH7S	DN8	DN8S	DNH8	DNH8S
1	Spring Hood	505069	790247	505069	790247	505067/2	505067/2	505067/2	505067/2
2 *	Axle U-bolt (M24 x 2.0)	503281/335	503283/450	503281/335	503283/430	503283/365	503283/450	503283/365	503283/450
3	Leaf Spring	502288	502288	502288	502288	502336	502336	502336	502336
4	Full Nut (M30 x 3.5)	754044	754044	754044	754044	754044	754044	754044	754044
5	Clamp Plate	503308/01	503308/01	503308/01	503308/01	503396/01	503396/01	503396/01	503396/01
6	Pivot Block Bolt	504749/475	504749/475	504749/475	504749/475	504749/530	504749/530	504749/530	504749/530
8 *	Full Nut (M24 x 2.0)	503288	503288	503288	503288	503288	503288	503288	503288
9	Straight Grease Nipple (M10 x 1.5)	738012/04	738012/04	738012/04	738012/04	738012/04	738012/04	738012/04	738012/04
10	Spring Seat	503340	790250	503340	790249	503399	790250	503399	790249
11	Pivot Block Machining	504746	504746	504746	504746	504755	504755	504755	504755
12	Thrust Bearing	501630	501630	501630	501630	502230	502230	502230	502230
13	Cap Bolt (M12)	CB12/175/055	CB12/175/055	CB12/175/055	CB12/175/055	CB12/175/055	CB12/175/055	CB12/175/055	CB12/175/055
14	Cross Shaft Assembly	503292/S	503292/S	504803/S	504803/S	504587/S	504587/S	504762/S	504762/S
15	Saddle (Square Axle)	-	790248	-	790248	-	790248	-	790248
16	Thrust Plate	501590	501590	501590	501590	502224	502224	502224	502224
17	Full Nut - Adjuster (M20 x 2.5)	FN20/250	FN20/250	FN20/250	FN20/250	FN20/250	FN20/250	FN20/250	FN20/250
18	Bogie Adjuster	504260	504260	504260	504260	504754/01	504754/01	504754/01	504754/01
20	Hex. Bolt - Adjuster, Full Thread	HB20/250/075	HB20/250/075	HB20/250/075	HB20/250/075	HB20/250/080	HB20/250/080	HB20/250/080	HB20/250/080
21	Dust Seal	501605	501605	501605	501605	502228	502228	502228	502228
22	Main Bush	501631	501631	501631	501631	502229	502229	502229	502229
23	Hood Rubber	504553	504510	504553	504510	504510	504510	504510	504510
24	Hub Mounting Ring	790258/01	790258/01	790258/01	790258/01	790258/02	790258/02	790258/02	790258/02
25	Hub Cap	790210	790210	790210	790210	790214	790214	790214	790214
28	Shear Plate	504729	504729	504729	504729	504512	504512	504512	504512
30 *	U-bolt Washer (M24)	503289	503289	503289	503289	503289	503289	503289	503289
*	U-Bolt Assembly (Items 2 + 8 + 30)	503280/335	503282/450	503280/335	503282/430	503282/365	503282/450	503282/365	503282/450

Note : Items marked with * are U-Bolt assembly components.

