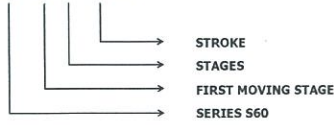


MODEL DESIGNATION

S60-143-3-3050



The standard features of WSC Series hoist range:

- All stages hard chrome plated
- Installed with the next generation Poly Seal® for the best performance and reliability.
- Radius wiper lip reduces apparent rod seal leakage and eliminates moisture entry into cylinder.
- Clip in base for ease of assembly and servicing
- Bleed plug on top of cylinder

Pressure Ratings:

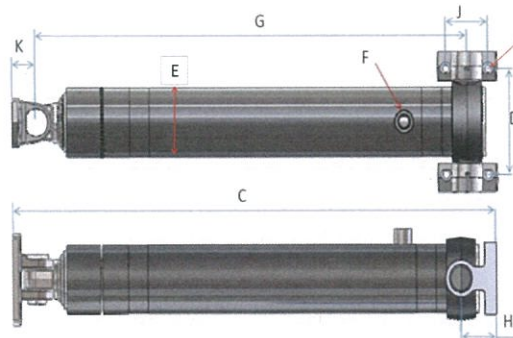
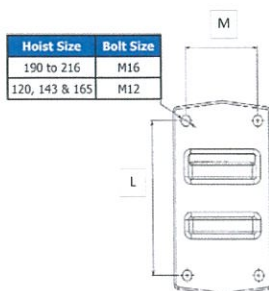
Max. operating pressures on 120 to 165 : 210 Bar (3000 psi)

Normal operating pressure 175 Bar (2500 psi)

Max. operating pressure on 190 to 215 :177 Bar (2500 psi) max.

Normal operating pressure 140 Bar(2000 psi)

Designation	Closed Height 'C'	Stroke	Outer Barrel Size	Inlet Port 'F'	CTC Height 'G'	Foot Mount 'H'	Top Mount 'K'	Foot Hole Pattern 'D' x 'J'	Top Plate Hole Pattern 'L' x 'M'	Tipping Capacity 48"	Weight Kg	Swept Volume Litres	Pivot Length
S60-120-3-2710	1249	2710	143	1" 1/16" UNO-RING	1099	90	60	219 x 95	146 x 70	20t	99	22	3305
S60-120-3-3040	1359	3040	143		1209	90	60	219 x 95	146 x 70	20t	107	25	3707
S60-120-3-3300	1445	3300	143		1295	90	60	219 x 95	146 x 70	20t	113	27	4024
S60-120-3-3440	1492	3440	143		1342	90	60	219 x 95	146 x 70	20t	117	28	4195
S60-120-3-3640	1559	3640	143		1409	90	60	219 x 95	146 x 70	20t	119	30	4439
S60-120-3-3740	1592	3740	143		1442	90	60	219 x 95	146 x 70	20t	123	31	4561
S60-120-3-3855	1630	3855	143		1480	90	60	219 x 95	146 x 70	20t	126	32	4701
S60-120-3-4025	1687	4025	143		1537	90	60	219 x 95	146 x 70	20t	130	33	4909
S60-143-3-2720	1253	2720	165		1103	90	60	239 x 95	146 x 70	30t	118	31	3317
S60-143-3-3050	1363	3050	165		1213	90	60	239 x 95	146 x 70	30t	128	35	3720
S60-143-3-3235	1424	3235	165		1274	90	60	239 x 95	146 x 70	30t	134	37	3945
S60-143-3-3565	1534	3565	165		1384	90	60	239 x 95	146 x 70	30t	143	41	4348
S60-143-3-3740	1592	3740	165		1442	90	60	239 x 95	146 x 70	30t	149	43	4561
S60-143-3-3925	1654	3925	165		1504	90	60	239 x 95	146 x 70	30t	154	45	4787
S60-143-3-4109	1716	4109	165		1566	90	60	239 x 95	146 x 70	30t	159	48	5011
S60-143-3-4313	1783	4313	165		1633	90	60	239 x 95	146 x 70	30t	165	50	5260
S60-143-3-4680	1907	4680	165		1757	90	60	239 x 95	146 x 70	30t	177	54	5707
S60-143-4-3200	1154	3200	165		1004	90	60	239 x 95	146 x 70	30t	130	31	3902
S60-143-4-3300	1180	3300	165		1030	90	60	239 x 95	146 x 70	30t	134	32	4024
S60-143-4-3500	1230	3500	165		1080	90	60	239 x 95	146 x 70	30t	140	37	4268
S60-143-4-3700	1280	3700	165		1130	90	60	239 x 95	146 x 70	30t	146	39	4512
S60-143-4-3900	1330	3900	165		1180	90	60	239 x 95	146 x 70	30t	150	41	4756
S60-143-4-4100	1380	4100	165		1230	90	60	239 x 95	146 x 70	30t	155	44	5000
S60-143-4-4335	1436	4335	165		1286	90	60	239 x 95	146 x 70	30t	165	46	5287
S60-143-4-4703	1530	4703	165		1380	90	60	239 x 95	146 x 70	30t	175	50	5735
S60-143-4-4995	1603	4995	165		1453	90	60	239 x 95	146 x 70	30t	181	56	6091
S60-165-4-4160	1412	4160	190	1" 5/16" UNO-RING	1262	90	60	305 x 165	146 x 70	40t	179	58	5073
S60-165-4-4640	1532	4640	190		1382	90	60	305 x 165	146 x 70	40t	194	65	5659
S60-165-4-4700	1548	4700	190		1398	90	60	305 x 165	146 x 70	40t	196	66	5732
S60-165-4-5100	1646	5100	190		1496	90	60	305 x 165	146 x 70	40t	208	71	6220
S60-165-4-5485	1743	5485	190		1593	90	60	305 x 165	146 x 70	40t	220	77	6689
S60-165-4-5696	1797	5696	190		1647	90	60	305 x 165	146 x 70	40t	226	80	6946
S60-165-4-5965	1863	5965	190		1713	90	60	305 x 165	146 x 70	40t	235	84	7274
S60-190-4-5985	1908	5985	216		1738	110	60	343 x 165	184 x 95	50t	300	114	7299
S60-190-4-6385	2008	6385	216		1838	110	60	343 x 165	184 x 95	50t	316	121	7787
S60-190-4-6560	2051	6560	216		1881	110	60	343 x 165	184 x 95	50t	322	124	8000
S60-190-4-7015	2165	7015	216		1995	110	60	343 x 165	184 x 95	50t	339	133	8555
S60-190-4-7295	2235	7295	216		2065	110	60	343 x 165	184 x 95	50t	350	138	8896
S60-190-5-6230	1658	6230	216		1488	110	60	343 x 165	146 x 70	45t	310	120	7598
S60-190-5-6745	1761	6745	216		1591	110	60	343 x 165	146 x 70	45t	324	126	8226
S60-190-5-7085	1829	7085	216		1659	110	60	343 x 165	146 x 70	45t	339	130	8640
S60-216-4-6230	2000	6230	248		1830	110	60	370 x 216	194 x 89	60t	422	157	7598
S60-216-4-7251	2255	7251	248		2085	110	60	370 x 216	194 x 89	60t	472	183	8843
S60-216-4-7640	2352	7640	248		2182	110	60	370 x 216	194 x 89	60t	494	193	9317



Hoist Size	Hole Dia.
216	26mm
165 to 190	20mm
120 to 143	17mm

Foot Height Options = H	
Hoist Size	Standard
120	90
145	90
165	90
190	110
215	110

Technical Data Sheet

PRODUCT FEATURES & BENEFITS

- **Low Closed Heights**
Interchangeable with most hoists.
- **Standard mountings**
Available with standard bolt patterns top and bottom and a variety of foot heights to suit each hoist size. Bleed plug on top of cylinder for seal longevity.
- **Stages**
All manufactured with chromed stages for greater surface hardness and for long life operation.
- **Latest Seal Technology**
Installed with SKF Poly Seal's to ensure durability with low friction to increase operation life and reduced maintenance cost. The SKF Wipers incorporate a dust lip to protect the hoist from hostile working environments.
- **Bearings**
The SKF close tolerance guide rings are carefully manufactured to ensure precision clearance control in fluid power systems. This provides longer seal life.
- **Ease of maintenance**
With a clip on base the Hydreco Powauto hoist is easy to service providing reduced downtime.
- **Pressure Ratings**
120, 145 and 165mm tube sizes have a maximum operating pressure of 210 bar (3000 psi) and normal operating pressure 175 bar (2500 psi).
190 and 216mm tube sizes have a maximum operating pressure of 175 bar (2500 psi).
Normal operating pressure is 140 bar (2000 psi).
- **Available options**
Raised trunnion, Spherical top bearing, Hose burst valve.



S60 SERIES HOISTS

Hydreco Powauto hoists offer a robust and reliable design for higher performance levels with longevity of life which will ensure less downtime and greater savings to the operator. The S60 hoist is fully developed and tested in Australia's harsh environment before being released to markets across the world.

The telescopic cylinder is not designed to withstand lateral or side pressure that occurs when the truck or trailer is leaning. Therefore do not activate the telescopic cylinder when the truck or dump trailer is not level or on soft ground. To avoid potential tip-over the telescopic cylinder should not be used where the truck or dump trailer is on uneven terrain, or soft ground, the same is valid on fresh fill, where wheels may sink on one side, again potentially leading to a tip over.

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Technical Data Sheet

Designation Codes

S60-120-3-2690	
SERIES S60	
FIRST MOVING STAGE O.D.	
120	
143	
165	
190	
216	
No. OF MOVING STAGES	
3	
4	
5	
	STROKE LENGTH (IN mm)
	2690
	3010
	3270
	3410
	3610
	3830

REFER PAGE - 2 & 3 FOR FULL LIST

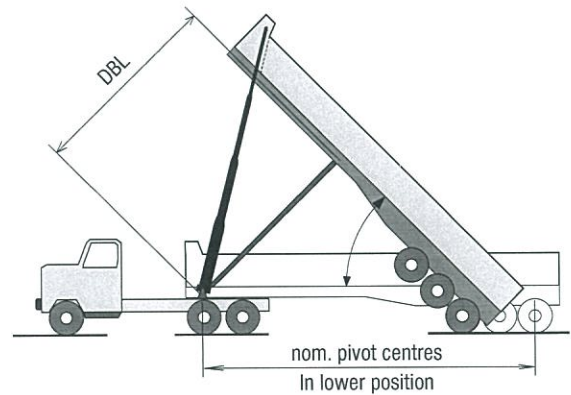
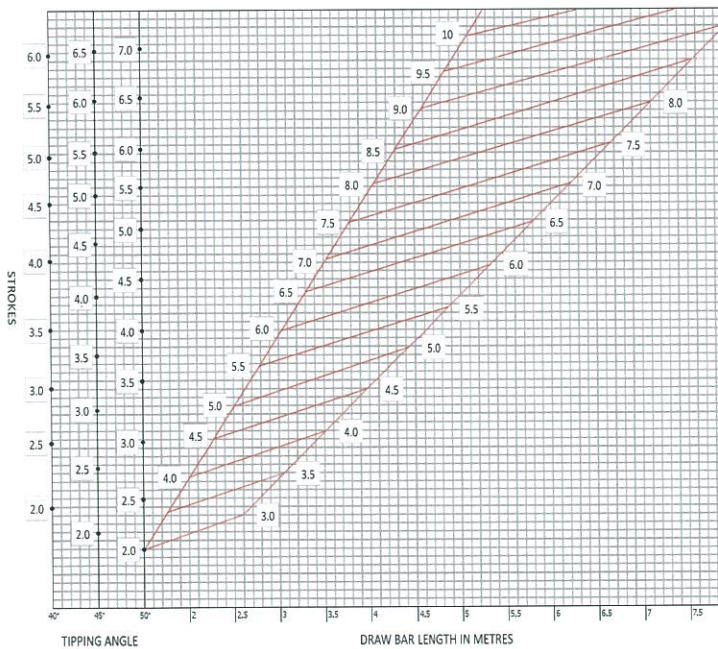
Tip over axle angle calculations

Stroke selection chart

This chart is for basic hoist selection calculations only. Tipping angles specified are based on the hoist pivot being 610mm higher than the rearmost axle and the hoist mount in a vertical position. A hoist with a closed cylinder height of 1524mm has been used in these calculations but a variation in height of 250mm either way will have minimal effect on the result. Nominal pivot centres is the distance, measured in a horizontal plane, between the hoist and draft arm pivot centres (same) and the rearmost axle centre line when the body is in a down position.

The minimum recommended tipping angle is 48°

Red lines shaded area are nominal pivot centres (m) in lowered position.



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Technical Data Sheet

Tipping Angle Calculations

WHERE PIVOT CENTRES & STROKE ARE KNOWN USE FORMULAE

$$\frac{\text{STROKE}}{\text{PIVOT CENTRES}} \times 59 = \text{ANGLE OF TIP}$$

WHERE PIVOT CENTRES & ANGLE OF TIP ARE KNOWN USE FORMULAE

$$40^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.68 = \text{HOIST STROKE}$$

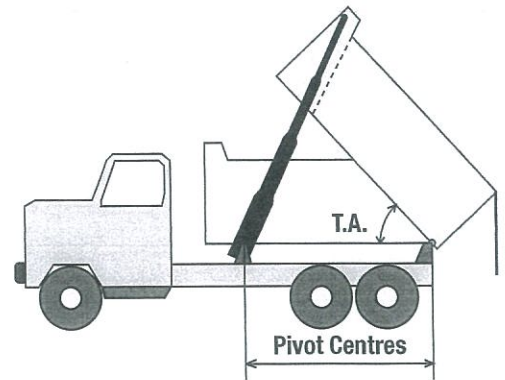
$$45^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.76 = \text{HOIST STROKE}$$

$$48^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.82 = \text{HOIST STROKE}$$

$$50^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.84 = \text{HOIST STROKE}$$

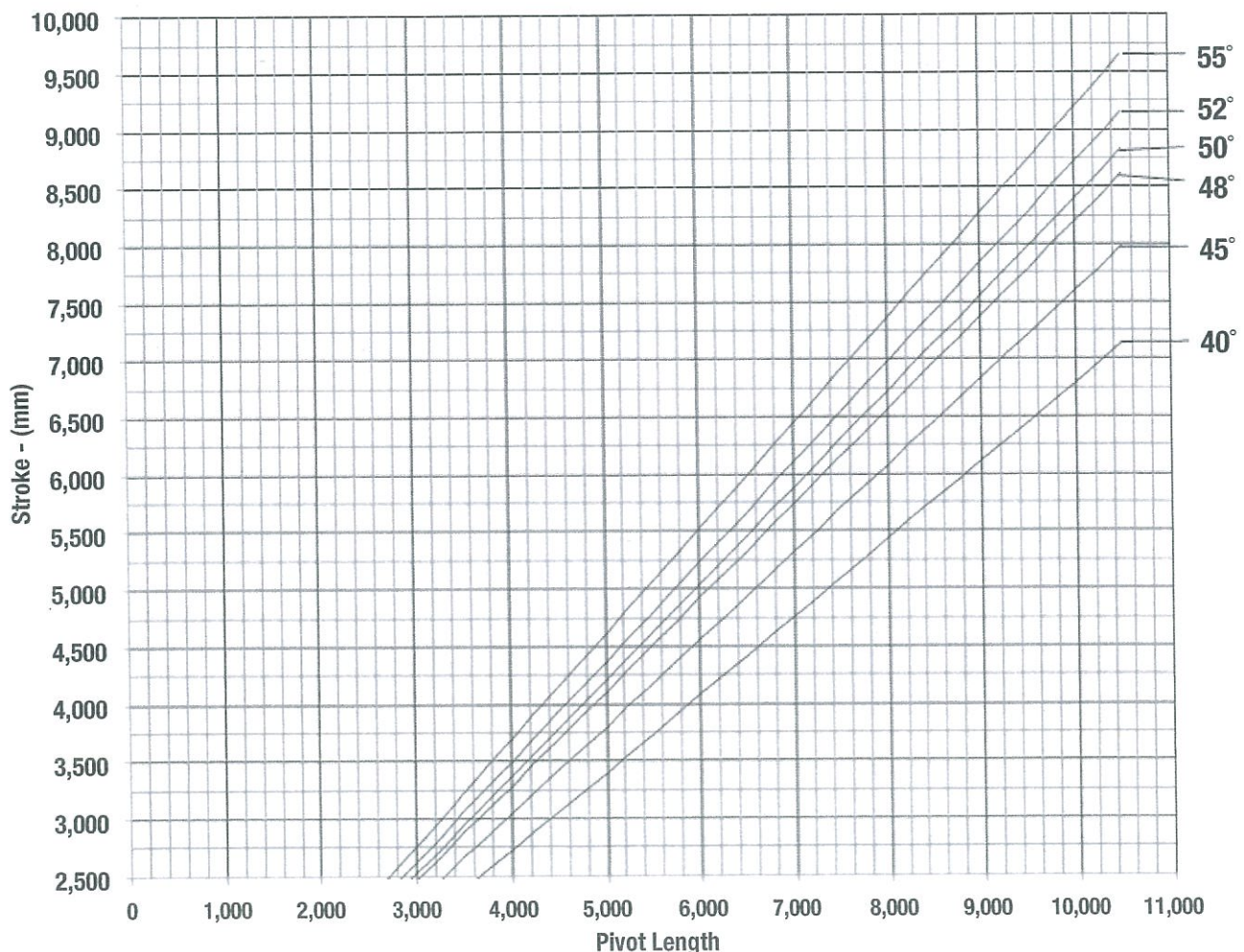
$$52^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.87 = \text{HOIST STROKE}$$

$$55^\circ \text{ ANGLE} = \text{PIVOT CENTRES} \times 0.92 = \text{HOIST STROKE}$$



PIVOT CENTRES

- A. The pivot and hoist pivot are on the same horizontal plane.
- B. The hoist is vertical when closed.



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