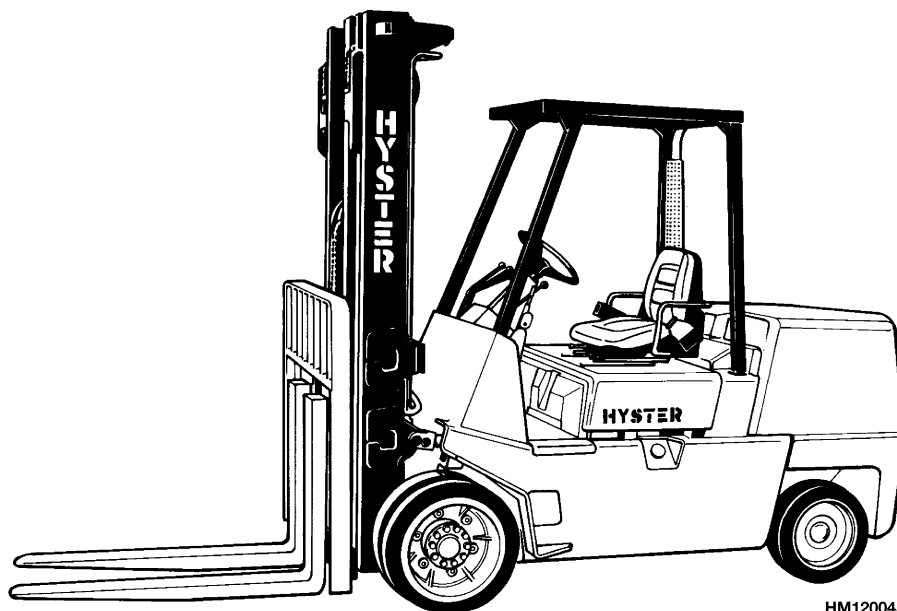


# CAPACITIES AND SPECIFICATIONS

S6.00-7.00XL (S135-155XL, S155XLS,  
S135-155XL<sub>2</sub>) [B024, C024]



HM120045

# **HYSTER**

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This section is for the following models:  
 S6.00-7.00XL (S135-155XL, S155XLS, S135-155XL<sub>2</sub>) [B024, C024]

## Lift Truck Weights

Unit	kg	lb
S6.00XL (S135XL, S135XL <sub>2</sub> )	8860	19,533
S7.00XL (S155XL, 155XLS, S155XL <sub>2</sub> )	9590	21,142

**NOTE:** Lift trucks equipped with overhead guard, 4570 mm (180 in.) B.O.F. Vista 2-stage upright, 1220 mm (48 in.) carriage, load backrest extension, 1220 mm (48 in.) forks, gas engine, and 90 kg (200 lb) operator.

## Hydraulic System

Item	Specification
Hydraulic System Capacity	50.2 liter (13.3 gal)
Hydraulic Tank Capacity	39.5 liter (10.4 gal) Drain and Refill
Relief Pressures*	
Main Control Valve	
Lift Circuit	20.88 to 21.20 MPa (3025 to 3075 psi)
Tilt and Auxiliary Circuit	15.34 to 15.68 MPa (2225 to 2275 psi)
Steering Circuit	12.075 MPa (1750 psi)
Brake Booster	2.275 MPa (330 psi)
Hydraulic Pump Capacity	102 liter/min (27.0 gal/min) at 21.0 MPa (3050 psi)
Steering Pump Capacity	19.7 liter/min (5.2 gal/min) at 12.075 MPa (1750 psi)

\*Oil temperature 49°C (120°F) and engine speed at 2500 rpm.

## Tire Sizes

Model	Steering	Drive
S6.00XL (S135XL, S135XL <sub>2</sub> )	22 × 8 × 16	28 × 12 × 22
S7.00XL (S155XL, S155XLS, S155XL <sub>2</sub> )	22 × 8 × 16	28 × 12 × 22

## Electrical System

<b>Battery</b>	
SAE No.	24-335
Cold Cranking	30 sec. min. at -17.8°C (0°F) to 1.2 volts
Reserve Capacity	85 min. at 26°C (80°F)
<b>Alternator Output</b>	
GM V-6	38 amps @ 650 rpm (Hot)
	62 amps @ 2500 rpm (Hot)
Perkins	42 amps @ 650 rpm (Hot)
	62 amps @ 2500 rpm (Hot)
All models - 12-volt negative ground	

## Engine Specifications

Item	GM V-6 4.3	Perkins 1004-4
Number of Cylinders	6	4
Firing Order	1-6-5-4-3-2	1-3-4-2
Bore	101.6 mm (3.99 in.)	100.00 mm (3.937 in.)
Stroke	88.39 mm (3.48 in.)	127.00 mm (5.00 in.)
Displacement	4.3 liter (262.4 in. <sup>3</sup> )	4.0 liter (244.0 in. <sup>3</sup> )
Compression Ratio	9.3:1	16.5:1
Idle Speed	625 to 675 rpm	725 to 775 rpm
Governor Speed	2400 to 2500 rpm	2400 to 2500 rpm
Stall Speed rpm (Engine at 50 hrs)	1810 (Gas) 1735 (LPG)	2090 rpm
Timing	0° BTDC at 650 rpm	16° BTDC (Static)
Oil Pressure (Minimum)	207 to 308 kPa (30 to 45 psi)	276 kPa (40 psi)
Valve Clearance	Not adjustable	0.20 mm (0.008 in.) Cold
Intake Exhaust	Not adjustable	0.45 mm (0.018 in.) Cold

### Transmission Oil Pressures

	Port No.	Powershift Transmission Pressures*	
	1	System Pressure	1179 to 1427 kPa (171 to 207 psi)
	2	Torque Converter Pressure	765 to 903 kPa (111 to 131 psi)
	3,4,5,6,7	Clutch Pressure	855 to 993 kPa (124 to 144 psi)
	8,9	Solenoid Pressure	827 to 1103 kPa (120 to 160 psi)
	10,11	Lubrication Pressure	131 to 173 kPa (19 to 25 psi)
	12,13	Lubrication Pressure	62 to 104 kPa (9 to 15 psi)

\*Oil temperature at least 82°C (180°F) and engine speed at 2000 rpm.

### Upright Speeds

Two-Stage Upright								
Unit	Lifting				Lowering			
	No Load		Rated Load		No Load		Rated Load	
	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min
S6.00XL (S135XL, S135XL <sub>2</sub> )	25.6	84	24.1	79	26.8	88	32.9	108
S7.00XL (S155XL, S155XLS, S155XL <sub>2</sub> )	25.6	84	24.1	79	26.8	88	33.6	110
Three-Stage Upright								
S6.00XL (S135XL, S135XL <sub>2</sub> )	24.4	80	22.3	73	23.5	77	33.6	110
S7.00XL (S155XL, S155XLS, S155XL <sub>2</sub> )	24.4	80	22.3	73	23.5	77	33.8	111

## Torque Specifications

### FRAME

**Counterweight Capscrew**  
655 N•m (485 lbf ft)

### ENGINE - GM V-6

**Intake Manifold Capscrews**  
47 N•m (35 lbf ft)

**Valve Cover Capscrews**  
10 N•m (7 lbf ft)

**Exhaust Manifold Capscrews**  
35 N•m (25 lbf ft)  
Center Port 25 N•m (20 lbf ft)  
Outer Ports 47 N•m (35 lbf ft)

**Camshaft Sprocket Capscrews**  
25 N•m (20 lbf ft)

**Vibration Damper Capscrew**  
81 N•m (60 lbf ft)

**Main Bearing Cap Capscrews**  
68 N•m (50 lbf ft)

**Connecting Rods**  
47 N•m (35 lbf ft)

**Flywheel Capscrews**  
81 N•m (60 lbf ft)

**Flywheel Housing Capscrews**  
50 N•m (40 lbf ft)

**Engine Mount to Engine Capscrews**  
35 N•m (25 lbf ft)

**Engine Mount to Mount Plate Bolts**  
68 N•m (50 lbf ft)

**Engine Mount to Flywheel Housing Capscrews**  
165 N•m (120 lbf ft)

**Engine Mount Bolts**  
122 N•m (90 lbf ft)

### ENGINE - PERKINS

**Engine Mount to Engine Capscrews**  
68 N•m (50 lbf ft)

**Engine Mount Bolts**  
122 N•m (90 lbf ft)

### POWERSHIFT TRANSMISSION

**Torque Converter Housing Capscrews**  
31 N•m (23 lbf ft)

**Torque Converter Drive Plate Capscrews**  
44 N•m (32 lbf ft)

**Engine Mount Capscrews at Torque Converter**  
110 N•m (80 lbf ft)

**Universal Joint Capscrews**  
50 N•m (37 lbf ft)

**Transmission Cover Capscrews**  
38 N•m (28 lbf ft)

**Manifold Block Capscrews**  
38 N•m (28 lbf ft)

**Oil Pump Capscrews**  
38 N•m (28 lbf ft)

**Torque Converter Housing-to-Transmission Capscrews**  
38 N•m (28 lbf ft)

**Control Valve Capscrews**  
19 N•m (14 lbf ft)

### MANUAL TRANSMISSION

**Pinion Nut**  
1085 N•m (800 lbf ft)

**Ring Gear Capscrews**  
140 N•m (105 lbf ft)

**Differential Case Capscrews**  
140 N•m (105 lbf ft)

**Range Main Shaft Capscrews**  
122 N•m (90 lbf ft)

**Pinion Bearing Carrier Capscrews**  
90 N•m (66 lbf ft)

**Bearing Retainer Capscrews**  
38 N•m (28 lbf ft)

**Transmission Cover Capscrews**

38 N•m (28 lbf ft)

**Differential Bearing Cap Capscrews**

225 N•m (165 lbf ft)

**Transmission Housing Capscrews**

90 N•m (66 lbf ft)

**OIL CLUTCH ASSEMBLY****Pressure Plate Cover Capscrews**

20 N•m (15 lbf ft)

**Clutch-to-Flywheel Housing Capscrews**

38 N•m (28 lbf ft)

**Bearing Carrier Capscrews**

38 N•m (28 lbf ft)

**Mount Bracket Capscrews**

165 N•m (122 lbf ft)

**Mount Capscrews**

40 N•m (30 lbf ft)

**Universal Joint**

24 N•m (18 lbf ft)

**Brake Pedal Bracket Capscrews**

38 N•m (28 lbf ft)

**STEERING SYSTEM****Axle Mount Capscrews**

250 to 275 N•m (185 to 200 lbf ft)

**Bearing Cap for Spindle Capscrews**

52 N•m (38 lbf ft)

**Tie Rod Nut**

160 N•m (118 lbf ft)

**Steering Cylinder Capscrews**

225 N•m (165 lbf ft)

**Wheel Bearing Adjustment Nut**

200 N•m (150 lbf ft) Initial

35 N•m (25 lbf ft) Final

**BRAKE SYSTEM****Back Plate Nuts**

55 to 80 N•m (41 to 59 lbf ft) Initial

110 to 125 N•m (80 to 92 lbf ft) Final

**Brake Booster Mount Capscrews**

38 N•m (28 lbf ft)

**HYDRAULIC SYSTEM****Capscrews for Special Blocks for Pump Drive Chain**

20 N•m (15 lbf ft)

**MAIN CONTROL VALVE****Lever Pivot Capscrews**

19 N•m (14 lbf ft)

**Collar Screw for Two Plunger Levers**

7 N•m (5 lbf ft)

**TILT CYLINDERS****Piston Nut**

300 to 325 N•m (220 to 240 lbf ft)

**End Plug**

400 to 500 N•m (295 to 370 lbf ft)

**Rod End Lock Capscrews**

77 N•m (57 lbf ft)

**Anchor Pin Retainer Capscrews**

77 N•m (57 lbf ft)

**UPRIGHT****Two-Stage Lift Cylinder Mount Capscrews**

555 N•m (410 lbf ft)

**Pivot Pin Capscrews**

435 N•m (320 lbf ft)

**Tilt Cylinder Rod End Anchor Pin and Lock Bolt**

77 N•m (57 lbf ft)

**Sideshift Carriage**

Keeper Plate Capscrews 90 N•m (65 lbf ft)

Side Roller Mount Capscrews 90 N•m (65 lbf ft)

Guide Rollers 345 N•m (255 lbf ft)

Side Rollers 90 N•m (65 lbf ft)

**DRIVE AXLE****Drive Axle-to-Transmission Housing Capscrews**

65 N•m (50 lbf ft)

**Axle Mount Capscrews**

1040 N•m (768 lbf ft)

**Axle Shaft Capscrews**

165 N•m (122 lbf ft)

**Wheel Nuts**

610 to 680 N•m (450 to 500 lbf ft)

**Wheel Bearing Adjustment Nut**

200 N•m (150 lbf ft) Initial

35 N•m (25 lbf ft) Final

**Wheel Bearing Lock Nut**

135 N•m (100 lbf ft)

**Pinion Nut**

1085 N•m (800 lbf ft)



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