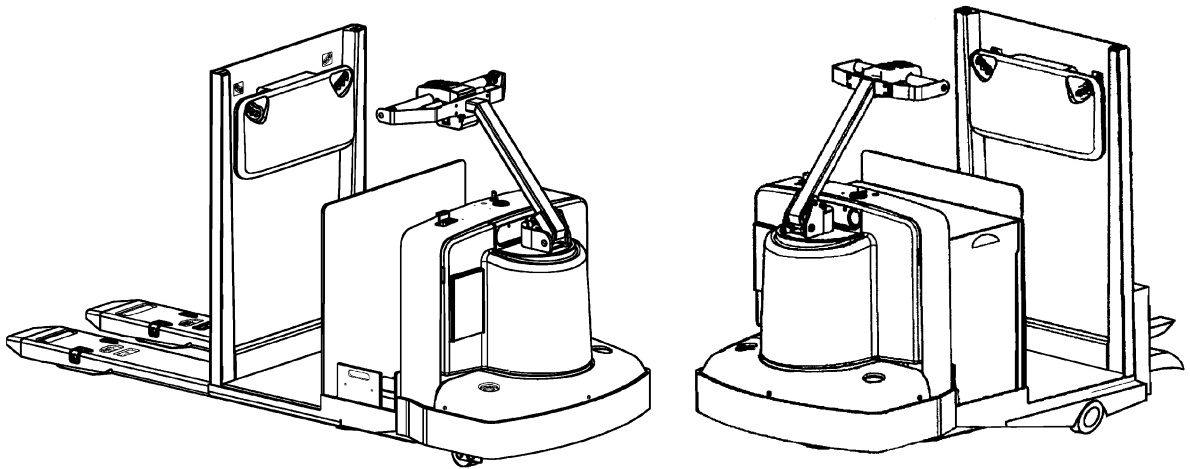


# CAPACITIES AND SPECIFICATIONS

T5Z [A476]; T7Z [A477]; C60Z [A478];  
C80Z [A479]; T5Z<sup>AC</sup> [B476]; T7Z<sup>AC</sup> [B477];  
C60Z<sup>AC</sup> [B478]; C80Z<sup>AC</sup> [B479]



# ***HYSTER***

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This section is for the following models:

T5Z [A476];  
 T7Z [A477];  
 C60Z [A478];  
 C80Z [A479];  
 T5Z<sup>AC</sup> [B476];  
 T7Z<sup>AC</sup> [B477];  
 C60Z<sup>AC</sup> [B478];  
 C80Z<sup>AC</sup> [B479]

(More Content includes: Brake system, Capacities, and specifications, Frame, Hydraulic, System, Industrial battery, Main control, Valve, Mast repair, Fasteners, Schematics diagrams, Steering axle, Steering system, Wire harness repair And more)

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## Hydraulic System (C60-80Z and C60-80Z<sup>AC</sup>)

Specification	C60Z and C60Z <sup>AC</sup>	C80Z and C80Z <sup>AC</sup>
Motor Power <sup>1</sup>	1.2 kW (1.6 hp)	1.5 kW (2.0 hp)
Hydraulic Relief Pressure	2700 psi	3500 psi
Lifting Speed		
With Load <sup>2</sup>	4.7 seconds	5.7 seconds
Without Load	3.5 seconds	3.9 seconds
Lowering Speed		
With Load <sup>2</sup>	1.2 seconds	2.4 seconds
Without Load	1.8 seconds	6.5 seconds
Pump Displacement	1.50 cm <sup>3</sup> (0.092 in. <sup>3</sup> )/rev	2.00 cm <sup>3</sup> (0.122 in. <sup>3</sup> )/rev
Allowable Drift With Load	6.4 mm (0.25 in.) Maximum in 10 minutes @ 21°C (70°F) Oil Temperature	
Hydraulic Reservoir Capacity	0.71 liter (0.75 qt)	0.85 liter (0.90 qt)
<sup>1</sup> 24 Volts DC <sup>2</sup> Capacity Load		

## Hydraulic Oils

Operating Condition	Standard	CS/Freezer/Food Processing	Arctic
<b>Truck Temperature Range</b>	0 to -84°C (32 to -120°F)	-18 to -84°C (0 to -120°F)	-40 to -84°C (-40 to -120°F)
<b>For All Hydraulically Actuated Equipment</b>			
<b>Specification</b>	ISO VG 46 Antiwear (HCE-140)	Exxon Univis <sup>®</sup> HVI 26	Exxon Univis <sup>®</sup> HVI 26
<b>Pour Point Maximum</b>	-15°C (5.0°F)	-60°C (-76.0°F)	-60°C (-76.0°F)
<b>Field Personnel Note:</b> The product listed above is the approved source that meets or exceeds <b>HYSTER</b> specifications. The use of products other than that listed above is unauthorized.			

## Master Drive Unit Specifications

Model	Motor Power	Gear Ratio	Capacity	Oil Specification
T5Z and C60Z	2.0 kW (2.7 hp)	16:1	1.7 liter (1.8 qt)	Gear Oil
T7Z and C80Z	2.8 kW (3.8 hp)	17.8:1	2.0 liter (2.1 qt)	Gear Oil
T5Z <sup>AC</sup> and C60Z <sup>AC</sup>	4.0 kW (5.36 hp)	16:1	1.7 liter (1.8 qt)	Gear Oil
T7Z <sup>AC</sup> and C80Z <sup>AC</sup>	4.0 kW (5.36 hp)	17.8:1	2.0 liter (2.1 qt)	Gear Oil

## Gear Oils

Operating Condition	Standard/CS/Freezer/Food Processing	Arctic
SAE Grade	80W-90	75W-90
Type	Multipurpose EP	Multipurpose EP
Base Oil	Conventional Petroleum	Synthetic
MIL-Specification No.	MIL-L-2105C	MIL-L-2105C
API Service Classification	GL-5	GL-5
Anticipated Ambient Temperature	-18 to 49°C (-15 to 100°F) Most <b>HYSTER</b> lift truck operations will fall within this temperature range.	As low as -60°C (-51°F) Primarily intended for cold storage and/or Arctic conditions; can be used as high as 90°C (32°F).
Approved Sources		
<b>Chevron</b>	Chevron Universal Gear Lube 80W/90	No Product
<b>Exxon</b>	Exxon Gear Oil GX 80W/90	No Product
<b>Mobil</b>	Mobilube HD 80W/90	Mobilube SHC 75W/90
<b>Pennzoil</b>	Pennzoil MP 4092	No Product
<b>Phillips 66</b>	Philube SMP Gear Oil 80W/90	No Product
<b>Solene Lub. Inc.</b>	Solene Gear Oil #905	No Product
<b>Sun</b>	Sunfleet GL-5 Gear Lube 80W/90	No Product
<b>Union 76</b>	Unocal MP Gear Lube LS 80W/90	No Product
<b>Field Personnel Note:</b> The products listed above are the approved sources that meet or exceed <b>HYSTER</b> specifications. The use of products other than that listed above is unauthorized.		

## Grease

Fittings and Bearings			
Application	Standard/CS/Freezer	Arctic/Food Processing	Steer Bearings
Approved Vendor	Mobilgrease® 28	Amsoil GHD®	Amsoil GHD®
Oil	Synthetic	Synthetic	Synthetic
Thickener	Clay	Lithium Complex	Lithium Complex
Grade NGLI	1.5	2.0	2.0
Moly-Fortified	No	Yes	Yes
Dropping Pt.	310°C (590°F)	288°C (550°F)	288°C (550°F)

**Field Personnel Note:** The product listed above is the approved source that meets or exceeds **HYSTER** specifications. The use of products other than that listed above is unauthorized.

## Tire Specifications

Lift Truck Model	Drive Tire		Load Wheel		Casters	
	Size	Composition	Size	Composition	Size	Composition
T5Z and T5Z <sup>AC</sup>	10.0 × 5.0 in.	Poly <sup>1</sup> (Standard) Rubber <sup>2</sup> (Optional) Siped-Poly <sup>1</sup> (Optional)	8.0 × 5.0 in.	Rubber <sup>2</sup> (Standard) Poly <sup>3</sup> (Optional)	Not Available	
T7Z and T7Z <sup>AC</sup>	12.0 × 4.5 in.	Poly <sup>1</sup>	8.0 × 5.0 in.	Rubber <sup>2</sup> (Standard) Poly <sup>3</sup> (Optional)	Not Available	
C60Z and C60Z <sup>AC</sup>	10.0 × 5.0 in.	Rubber <sup>2</sup> (Standard) Poly <sup>1</sup> (Optional) Siped-Poly <sup>1</sup> (Optional)	3.25 × 6.50 in.	Single/Poly <sup>4</sup> (Standard)	4.0 × 2.5 in.	Poly <sup>4</sup>
			3.250 × 3.125 in.	Dual/Poly <sup>4</sup> (Optional)		
C80Z and C80Z <sup>AC</sup>	12.0 × 4.5 in.	Poly <sup>1</sup>	3.25 × 6.50 in.	Single/Poly <sup>4</sup> (Standard)	4.0 × 2.5 in.	Poly <sup>5</sup>
			3.250 × 3.125 in.	Dual/Poly <sup>4</sup> (Optional)		

<sup>1</sup>Durometer 90  
<sup>2</sup>Durometer 65  
<sup>3</sup>Durometer 93  
<sup>4</sup>Durometer 95  
<sup>5</sup>Durometer 92

## Torque Specifications

### MASTER DRIVE UNIT

**Lower Nut on Motor Mounting Stud (4 Places)**  
26 N•m (19 lbf ft)

**Upper Nut on Motor Mounting Stud (4 Places)**  
20 N•m (15 lbf ft)

**Transmission to Frame Mounting Bolts (4 Each)(C60Z, C60Z<sup>AC</sup>, T5Z, and T5Z<sup>AC</sup>)**  
201 N•m (148 lbf ft)

**Transmission to Frame Mounting Bolts (4 Each)(C80Z, C80Z<sup>AC</sup>, T7Z, and T7Z<sup>AC</sup>)**  
300 N•m (221 lbf ft)

**Top Cover to Support Bracket**  
32 N•m (24 lbf ft)

**Pinion Gear to Shaft**  
180 N•m (133 lbf ft)

**Drive Shaft Gear Retaining Nut**  
300 N•m (221 lbf ft)

**Drain Plug**  
60 N•m (44 lbf ft)

**Fill Plug**  
45 N•m (33 lbf ft)

**Lug Bolts (5 Each) (C60Z and T5Z)**  
201 ±9 N•m (148 ±7 lbf ft)

**Lug Nuts (5 Each) (C80Z, C80Z<sup>AC</sup>, T7Z, and T7Z<sup>AC</sup>)**  
201 ±9 N•m (148 ±7 lbf ft)

### BRAKE

**Installation Allen-Head Capscrews (3 Each) (C60Z, C60Z<sup>AC</sup>, T5Z, and T5Z<sup>AC</sup>)**  
10 N•m (89 lbf in)

**Installation Allen-Head Capscrews (3 Each) (C80Z, C80Z<sup>AC</sup>, T7Z, and T7Z<sup>AC</sup>)**  
17 N•m (13 lbf ft)

### STEERING

**Support to Frame Mounting Bolts (4 Each)**  
88 N•m (65 lbf ft)

**Steer Bearing Locking Nut**  
27 N•m (20 lbf ft)

**Control Handle Bracket to Control Handle Arm (4 Each)**  
14 N•m (10 lbf ft)

**Control Handle Head to Control Handle Bracket (4 Each)**  
9 N•m (80 lbf in)

**Directional Control Shaft to Control Handle Bracket (2 Each)**  
42 N•m (31 lbf ft)

### ELECTRICAL

**Traction Motor Terminals (4 Each)**  
9 N•m (80 lbf in)

### COUPLER (T5Z, T5Z<sup>AC</sup>, T7Z, AND T7Z<sup>AC</sup>)

**Coupler (Jaw-Type) to Frame (4 Each)**  
102 N•m (75 lbf ft)

**Coupler (Pin-Type) to Frame (2 Each)**  
203 N•m (150 lbf ft)

### LIFT PUMP (C60Z, C60Z<sup>AC</sup>, C80Z, AND C80Z<sup>AC</sup>)

**Pressure Port Fitting**  
38 N•m (28 lbf ft)

## Travel Speeds

### T5Z, T5Z<sup>AC</sup>, T7Z, AND T7Z<sup>AC</sup>

Model	No Load						200 lbs Drawbar Pull			300 lbs Drawbar Pull			5000 lbs GTW		
	Level			5% Grade			Level			Level			5% Grade		
	Speed		Batt. Amp.	Speed		Batt. Amp.	Speed		Batt. Amp.	Speed		Batt. Amp.	Speed		Batt. Amp.
	km/h	mph		km/h	mph		km/h	mph		km/h	mph		km/h	mph	
T5Z	12.6	7.8	98.3	5.9	3.7	176.0	7.1	4.4	135.6	N/A	N/A	N/A	4.7	2.9	259.0
T7Z	13.5	8.4	138.9	8.9	5.5	187.0	N/A	N/A	N/A	6.8	4.2	225.4	4.6	2.8	285.0

**NOTE:** Information applies to trucks equipped with rubber drive tire and 454 kg (1000 lb) battery with specific gravity 1.265 or higher.

### C60Z, C60Z<sup>AC</sup>, C80Z, AND C80Z<sup>AC</sup>

Model	No Load						Loaded to Capacity					
	Level			5% Grade			Level			5% Grade		
	Speed		Batt. Amp.	Speed		Batt. Amp.	Speed		Batt. Amp.	Speed		Batt. Amp.
	km/h	mph		km/h	mph		km/h	mph		km/h	mph	
C60Z	13.0	8.1	56.6	9.0	5.6	129.0	9.5	5.9	110.0	4.2	2.6	294.0
C80Z	12.6	7.8	95.3	8.0	5.0	132.0	7.4	4.6	145.4	3.9	2.4	251.0

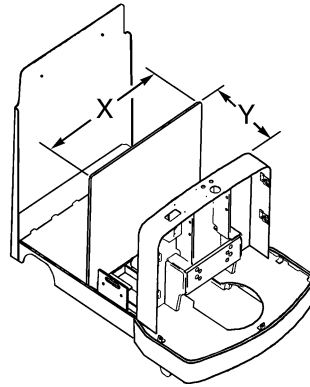
**NOTE:** Information applies to trucks equipped with poly drive tire and 454 kg (1000 lb) battery with specific gravity 1.265 or higher.

## Truck Weight

Unit	Less Battery		With Battery	
	kg	lb	kg	lb
T5Z and T5Z <sup>AC</sup>	541	1192	994	2192
T7Z and T7Z <sup>AC</sup>	587	1295	1041	2295
C60Z and C60Z <sup>AC</sup>	733	1616	1187	2616
C80Z and C80Z <sup>AC</sup>	836	1842	1289	2842



## Battery Specifications and Adjustments



BO030000

*Figure 1. Battery Compartment*

Battery and Battery Compartment Dimensions									
Model	Battery Compartment			Battery					
	Dimensions			Length (X)		Width (Y)		Capacity <sup>2</sup>	Weight
	Length (X) mm (in.)	Width (Y) mm (in.)	Height	Min <sup>1</sup> mm (in.)	Max mm (in.)	Min <sup>1</sup> mm (in.)	Max mm (in.)	Max kwh (amp hr)	Max kg (lb)
T5Z and T5Z <sup>AC</sup>	794 (31.25)	340 (13.4)	Open	648 (25.5)	785 (30.9)	218 (8.6)	330 (13)	11.9 (510)	469 (1035)
T7Z and T7Z <sup>AC</sup>	794 (31.25)	340 (13.4)	Open	648 (25.5)	785 (30.9)	218 (8.6)	330 (13)	17.6 (750)	658 (1450)
C60Z and C60Z <sup>AC</sup>	794 (31.25)	340 (13.4)	Open	663 (26.1)	785 (30.9)	325 (12.8)	330 (13)	11.9 (510)	469 (1035)
C80Z and C80Z <sup>AC</sup>	794 (31.25)	340 (13.4)	Open	663 (26.1)	785 (30.9)	325 (12.8)	330 (13)	17.6 (750)	658 (1450)

<sup>1</sup> Minimum battery dimensions allowed with standard battery spacer group.  
<sup>2</sup> 6 hour rate.  
**NOTE:** 24 Volt DC battery only.  
 Covered batteries required.  
 Battery connector type is 175 Amp, Red (Gray is optional).  
 Cable lead position B.  
 20-Inch cable length.  
 Maximum cable gauge of 1/0.

