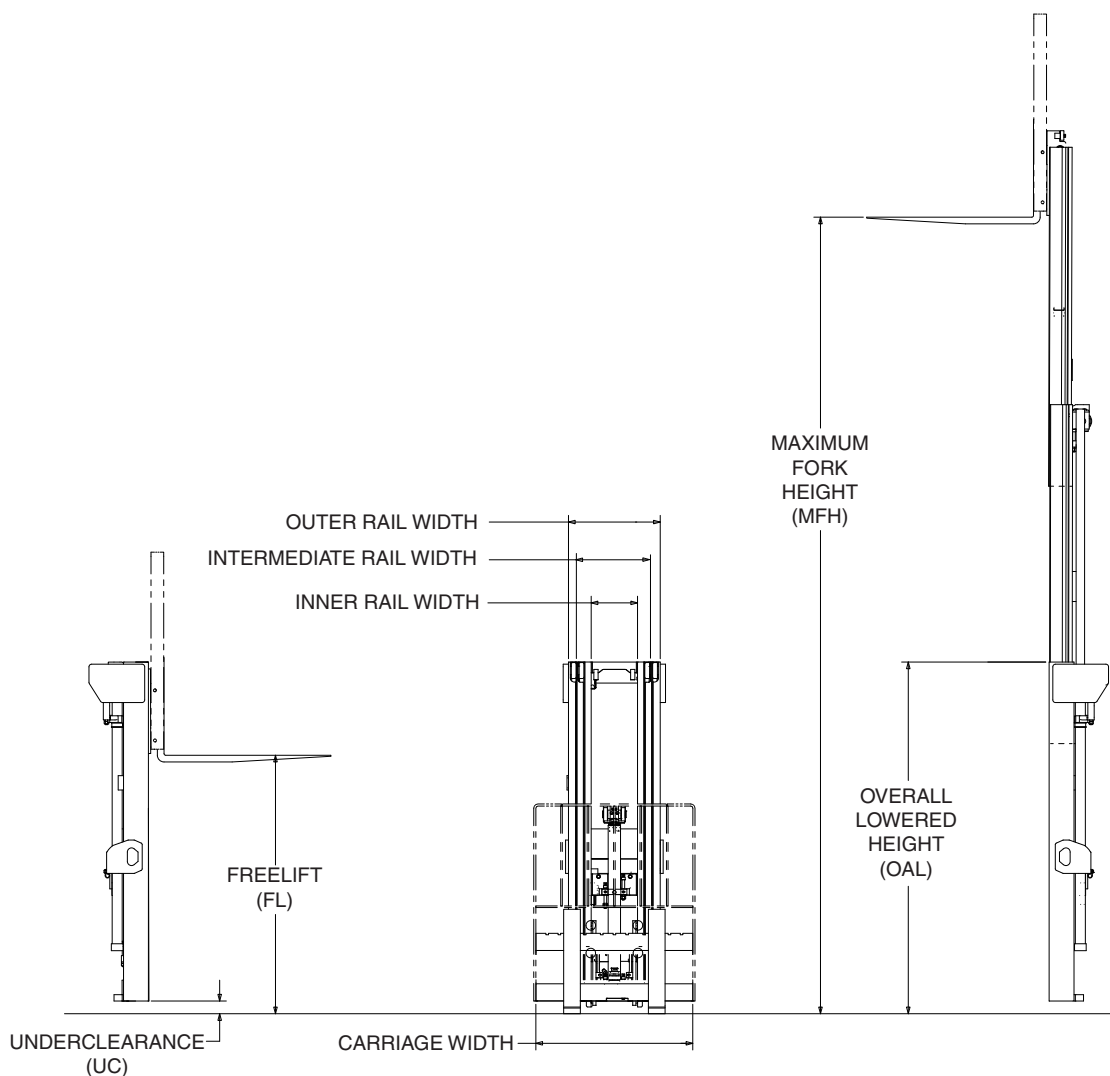




# Lift Technologies, Inc.

7040 South Highway 11, Westminster, South Carolina 29693

## MAST Specifications



## **Lift Technologies, Inc.**

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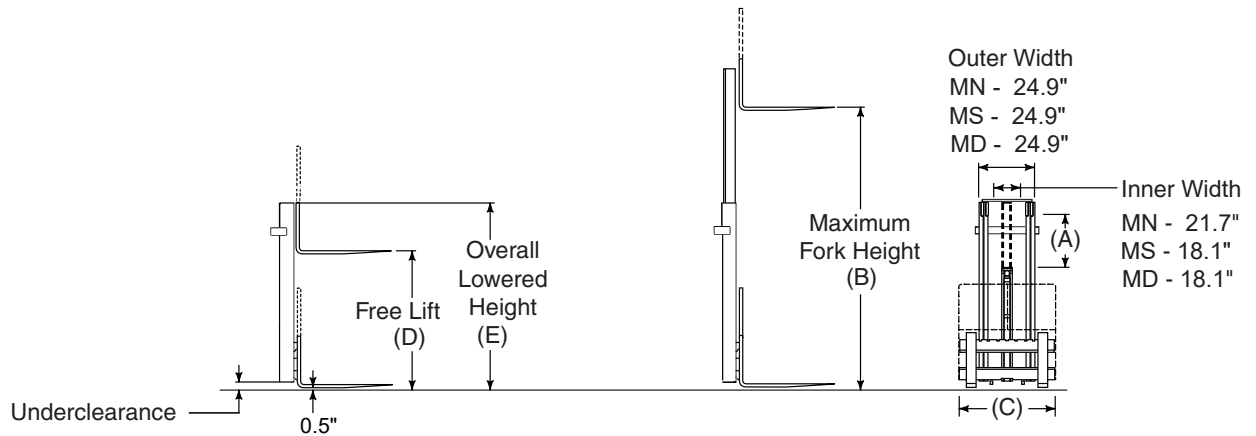
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**Specifications, equipment, technical data and illustrations are based on information at time of printing and subject to change without notice.  
Please contact Lift Technologies.**



	Capacity (lb. @ 24" Load Center)	Underclearance	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>MN Mono Single Stage (freelift only)</b>	2500	2"	53.1"	69.5"	26.7"	25ST-MN-C069.5	N/A"	0.3	220
	2500	2"	65.0"	81.5"	32.7"	25ST-MN-C081.5	N/A"	0.4	235
<b>MS Standard Two Stage (no freelift)</b>	2500	2"	72.0"	55.0"	N/A	25ST-MS-C055	0"	0.4	575
	2500	2"	104.0"	71.0"	N/A	25ST-MS-C071	0"	0.5	680
	2500	2"	112.0"	75.0"	N/A	25ST-MS-C075	0"	0.6	705
	2500	2"	128.0"	83.0"	N/A	25ST-MS-C083	0"	0.7	765
	2500	2"	144.0"	91.0"	N/A	25ST-MS-C091	0"	0.8	835
<b>MD Dual Two Stage (full freelift)</b>	2500	2"	104.0"	71.0"	23.6"	25ST-MD-C071	51.5"	1.0	650
	2500	2"	112.0"	75.0"	25.6"	25ST-MD-C075	55.5"	1.1	675
	2500	2"	128.0"	83.0"	29.6"	25ST-MD-C083	63.5"	1.3	730
	2500	2"	144.0"	91.0"	33.6"	25ST-MD-C091	71.5"	1.4	780

Specify truck model, carriage and load backrest separately.

Specifications on this page include a 31" wide 4 roller class II carriage and no load back rest.

## Carriages

### 4 Roller Carriage

Width "C"	ITA Class		Weight (lb.)
31"	II	25ST-MN-01A	111
31"	II	25ST-MS-01A	111
31"	II	25ST-MD-01A	91

## Hydraulic Information

► **Pressures and Flows:** The 25ST mast models have a minimum hydraulic system pressure to lift the rated load well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. The mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application.

**See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
25ST-MN/MS/MD	2350	3000	1	1.75 to 3

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

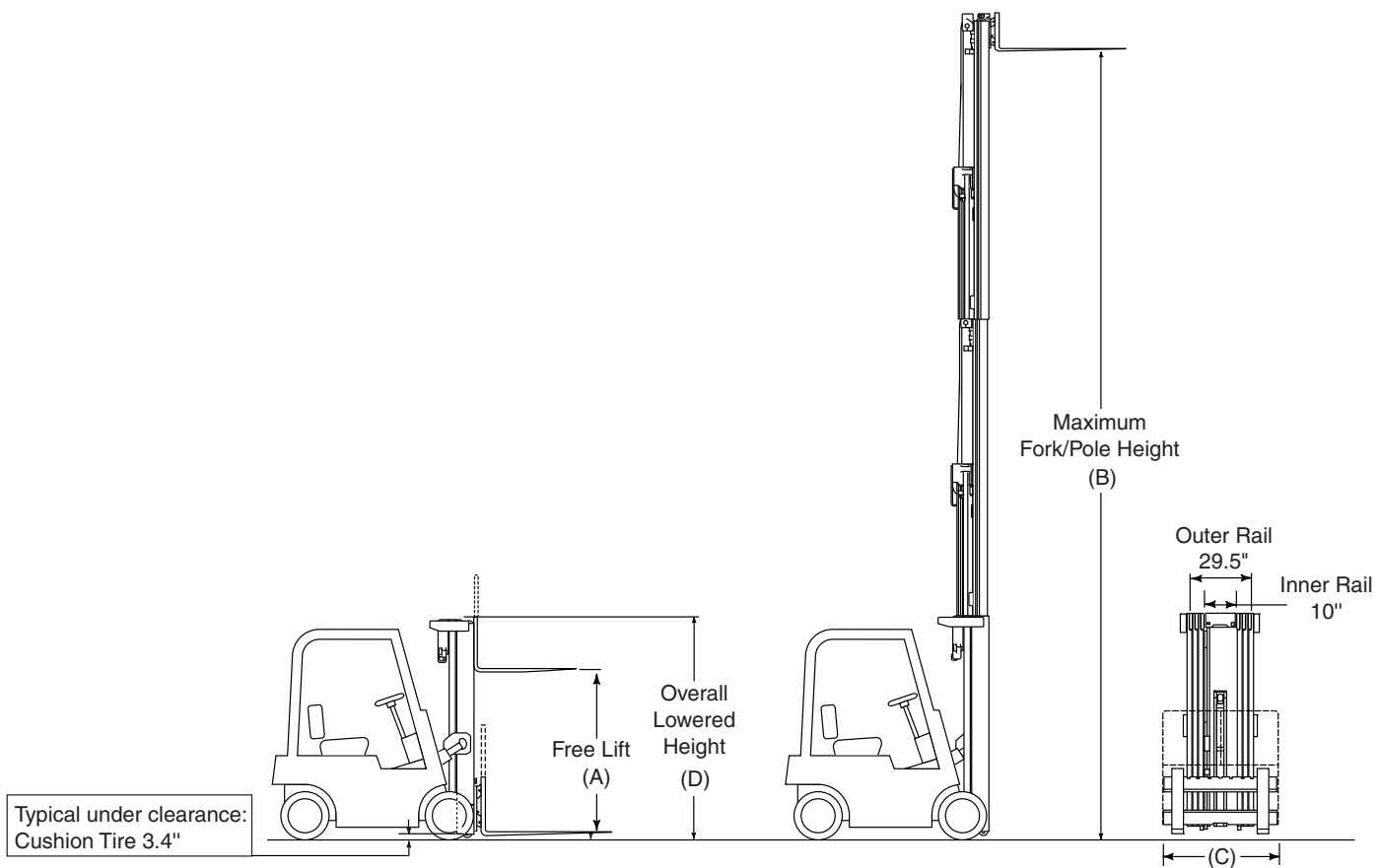
## Load Backrest

Width	Height	ITA Class	Ref #	Weight (lb.)
31"	40"	II	7183402	44

► **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

► Contact Lift Technologies for further information on specifications and visibility.

# 27HS/50HS MP 5 Stage Mast



	Capacity (lb. @ load center noted)	Truck Type	Load Center	Maximum Fork Height (B)	Maximum Pole Height (B)	Overall Lowered Height (D)	Order Ref No.	Free Lift (A)	Fluid to Extend (gals)	Weight (lb.)
Five Stage	2750	Cushion	72"		281.5"	80.0"	27HS-MP-080	68.0"	3.7	3155
	2750	Cushion	72"		306.5"	85.0"	27HS-MP-085	73.0"	4.0	3285
	2750	Cushion	72"		331.5"	90.0"	27HS-MP-090	78.0"	4.3	3415
	2665	Cushion	72"		351.2"	95.0"	27HS-MP-095	83.0"	4.6	3545
	2585	Cushion	72"		369.0"	100.0"	27HS-MP-100	88.0"	4.9	3675
	2500	Cushion	72"		386.8"	105.0"	27HS-MP-105	93.0"	5.1	3805
	2420	Cushion	72"		404.5"	110.0"	27HS-MP-110	86.5"	5.4	3935
	5000	Cushion	24"	270.1"		80.0	50HS-MP-080	56.5"	3.7	3090
	5000	Cushion	24"	295.1"		85.0"	50HS-MP-085	61.5"	4.0	3220
	5000	Cushion	24"	320.1"		90.0"	50HS-MP-090	66.5"	4.3	3350
	4850	Cushion	24"	339.8"		95.0"	50HS-MP-095	71.5"	4.6	3480
	4700	Cushion	24"	357.6"		100.0"	50HS-MP-100	76.5"	4.9	3610
	4550	Cushion	24"	375.3"		105.0"	50HS-MP-105	81.5"	5.1	3740
	4400	Cushion	24"	393.1"		110.0"	50HS-MP-110	86.5"	5.4	3870

► **27HS-MP:** Specifications listed reflect a mast with an integral 8 roller carpet pole carriage and include a 270 lb. @ 12' carpet pole. Final mast weight shown does not include the carpet pole.

► **50HS-MP:** Specification listed reflects a mast with a 41" wide, class II 8-roller carriage and a 48" high load backrest. 3000 psi system pressure is required to achieve 5000 lb. capacity.

## Carriages

### 8 Roller Carriages - Class II

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
41"	Cushion	CLII	266735	245
49"	Cushion	CLII	266736	275

### 8 Roller Carriages - Class III

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
41"	Cushion	CLIII	266181	255
49"	Cushion	CLIII	266737	285

## Integral Carpet Pole Carriages 8 Roller

Pole Dia.	Truck Type	ITA Class	Ref #	Weight (lb.)
3"	Cushion	N/A	266182	300
3.25"	Cushion	N/A	266711	300
3.5"	Cushion	N/A	266712	300

- 27HS-MP masts include integral 8 roller carpet pole carriage. Final weight of the mast does not include the carpet pole.  
Carpet poles available through Lift Technologies.

## Load Backrests

Width	Height	ITA Class	Ref #	Weight (lb.)
41"	48"	CLII	684776	90
49"	48"	CLII	674779	99

Width	Height	ITA Class	Ref #	Weight (lb.)
41"	48"	CLIII	684788	91
49"	48"	CLIII	684791	100

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Hydraulic Oil Flow Rates**" to determine what mast options are required.

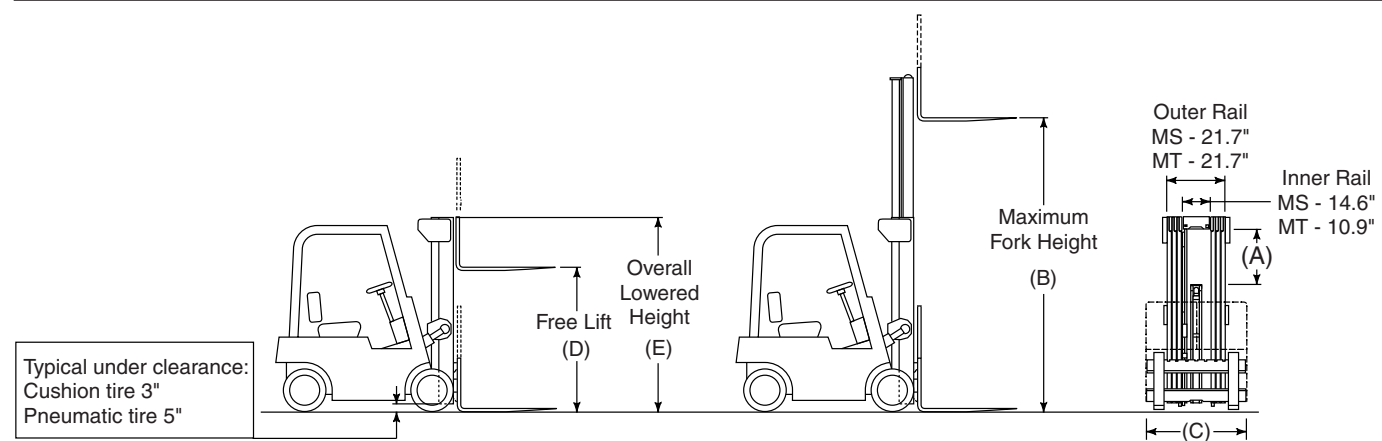
## Other Important Information!

- **Pressures and Flows:** The 27HS & 50HS mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A **minimum** and recommended flow rate is also noted below. **Some** applications have successfully used flow rates of 30 **gpm**, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application.

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
27HS MP	2150	3000	1	19
50HS MP	2600	3000	1	19

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	Cushion	81.5"	60.0"	N/A	30D-MS-C060	5.5"	0.7	870
	Pneumatic	81.5"	62.0"	N/A	30D-MS-P062	5.5"	0.7	870
	Cushion	105.5"	72.0"	N/A	30D-MS-C072	5.5"	0.9	950
	Pneumatic	105.5"	74.0"	N/A	30D-MS-P074	5.5"	0.9	950
	Cushion	115.5"	77.0"	N/A	30D-MS-C077	5.5"	1.0	985
	Pneumatic	115.5"	79.0"	N/A	30D-MS-P079	5.5"	1.0	985
	Cushion	127.5"	83.0"	N/A	30D-MS-C083	5.5"	1.1	1025
	Pneumatic	127.5"	85.0"	N/A	30D-MS-P085	5.5"	1.1	1025
	Cushion	139.5"	89.0"	N/A	30D-MS-C089	5.5"	1.2	1070
	Pneumatic	139.5"	91.0"	N/A	30D-MS-P091	5.5"	1.2	1070
	Cushion	151.5"	95.0"	N/A	30D-MS-C095	5.5"	1.3	1110
	Pneumatic	151.5"	97.0"	N/A	30D-MS-P097	5.5"	1.3	1110
Triple Three Stage MT	Cushion	169.5"	104.0"	N/A	30D-MS-C104	5.5"	1.4	1170
	Pneumatic	169.5"	106.0"	N/A	30D-MS-P106	5.5"	1.4	1170
	Cushion	119.0"	60.0"	18.5"	30D-MT-C060	36.0"	1.0	1135
	Pneumatic	119.0"	62.0"	18.5"	30D-MT-P062	36.0"	1.0	1135
	Cushion	155.0"	72.0"	24.5"	30D-MT-C072	48.0"	1.4	2366
	Pneumatic	155.0"	74.0"	24.5"	30D-MT-P074	48.0"	1.4	2366
	Cushion	170.0"	77.0"	27.0"	30D-MT-C077	53.0"	1.5	1305
	Pneumatic	170.0"	79.0"	27.0"	30D-MT-P079	53.0"	1.5	1305
	Cushion	188.0"	83.0"	30.0"	30D-MT-C083	59.0"	1.7	1365
	Pneumatic	188.0"	85.0"	30.0"	30D-MT-P085	59.0"	1.7	1365
	Cushion	202.0"	89.0"	33.0"	30D-MT-C089	65.0"	1.8	1425
	Pneumatic	202.0"	91.0"	33.0"	30D-MT-P091	65.0"	1.8	1425
2720	Cushion	216.0"	95.0"	36.0"	30D-MT-C095	71.0"	1.9	1480
	Pneumatic	216.0"	97.0"	36.0"	30D-MT-P097	71.0"	1.9	1480
2190	Cushion	235.0"	104.0"	39.0"	30D-MT-C104	80.0"	2.1	1570
	Pneumatic	235.0"	106.0"	39.0"	30D-MT-P106	80.0"	2.1	1570

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 81.5" to 235".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.



## Integral Sideshift Carriages

Width (C)	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	30D-ISS-021A	211
37"	Pneumatic	II	30D-ISS-022A	211
41"	Cushion	II	30D-ISS-023A	224
41"	Pneumatic	II	30D-ISS-024A	224

► **Integral sideshifters** are 6 roller designs. When supplied in a mast, they are installed complete with a hose kit, tested and ready for use.

► **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width (C)	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	30D-MC-01A	139
31"	Pneumatic	II	30D-MC-02A	139
37"	Cushion	II	30D-MC-03A	188
37"	Pneumatic	II	30D-MC-04A	188
41"	Cushion	II	30D-MC-05A	204
41"	Pneumatic	II	30D-MC-06A	204

► **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width (C)	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	30D-MC-011A	146
31"	Pneumatic	II	30D-MC-012A	146
37"	Cushion	II	30D-MC-013A	194
37"	Pneumatic	II	30D-MC-014A	194
41"	Cushion	II	30D-MC-015A	210
41"	Pneumatic	II	30D-MC-016A	210

► **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

► **Backrests** are also available in 36" and 60" heights and heavy duty designs.

► **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

► Single and dual function internal hose reeving is available for MS and MT masts.

For units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.

► Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

► Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

► The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.

► **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

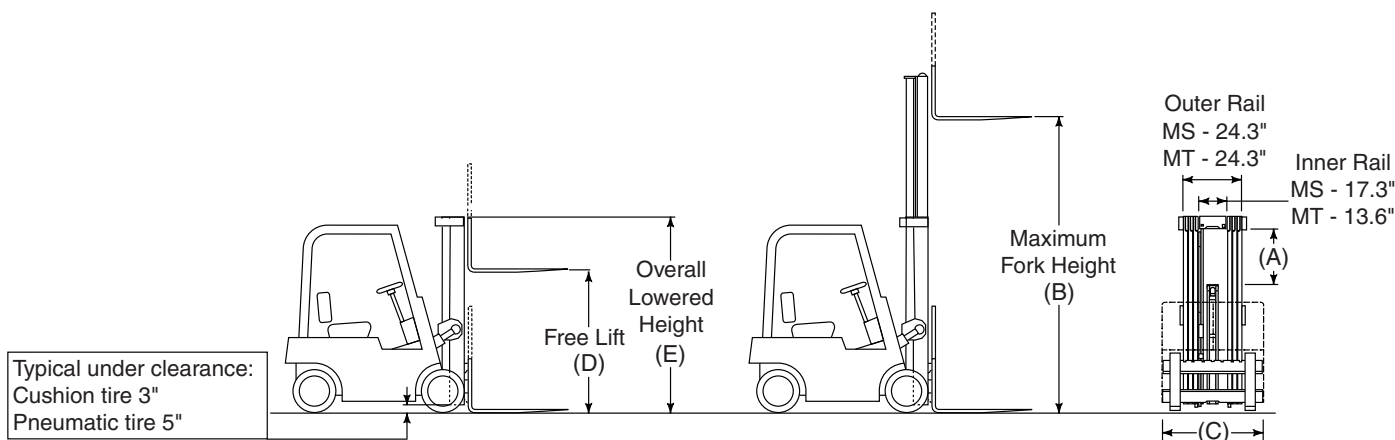
## Other Important Information!

► **Pressures and Flows:** The 30D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 13 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
30D MS	2050	2750	1	10
30D MT	2150	2750	1	10

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	3000	Cushion	81.5"	77.0"	N/A	ES30-MS-C077	5.5"	0.8	865
		Pneumatic	81.5"	79.0"	N/A	ES30-MS-P079			
	3000	Cushion	115.5"	83.0"	N/A	ES30-MS-C083	5.5"	1.1	980
		Pneumatic	115.5"	85.0"	N/A	ES30-MS-P085			
	3000	Cushion	127.5"	89.0"	N/A	ES30-MS-C089	5.5"	1.2	1020
		Pneumatic	127.5"	91.0"	N/A	ES30-MS-P091			
Triple Stage MT	3000	Cushion	151.5"	95.0"	N/A	ES30-MS-C095	5.5"	1.4	1100
		Pneumatic	151.5"	97.0"	N/A	ES30-MS-P097			
	3000	Cushion	170.0"	77.0"	27.3"	ES30-MT-C077	52.4"	1.7	1420
		Pneumatic	170.0"	79.0"	27.3"	ES30-MT-P079			
	3000	Cushion	188.0"	83.0"	30.3"	ES30-MT-C083	58.4"	1.9	1490
		Pneumatic	188.0"	85.0"	30.3"	ES30-MT-P085			
	3000	Cushion	202.0"	89.0"	33.3"	ES30-MT-C089	64.4"	2.0	1555
		Pneumatic	202.0"	91.0"	33.3"	ES30-MT-P091			
	3000	Cushion	216.0"	95.0"	36.3"	ES30-MT-C095	70.4"	2.1	1625
		Pneumatic	216.0"	97.0"	36.3"	ES30-MT-P097			
	2690	Cushion	235.0"	104.0"	39.3"	ES30-MT-C104	79.4"	2.3	1730
		Pneumatic	235.0"	106.0"	39.3"	ES30-MT-P106			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

# ES30 Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES30-ISS-021A	211
37"	Pneumatic	II	ES30-ISS-022A	
41"	Cushion	II	ES30-ISS-023A	224
41"	Pneumatic	II	ES30-ISS-024A	

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES30-MC-01A	156
37"	Pneumatic	II	ES30-MC-02A	
41"	Cushion	II	ES30-MC-03A	163
41"	Pneumatic	II	ES30-MC-04A	

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES30-MC-011A	174
37"	Pneumatic	II	ES30-MC-012A	
41"	Cushion	II	ES30-MC-013A	181
41"	Pneumatic	II	ES30-MC-014A	

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS and MT masts.  
For units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

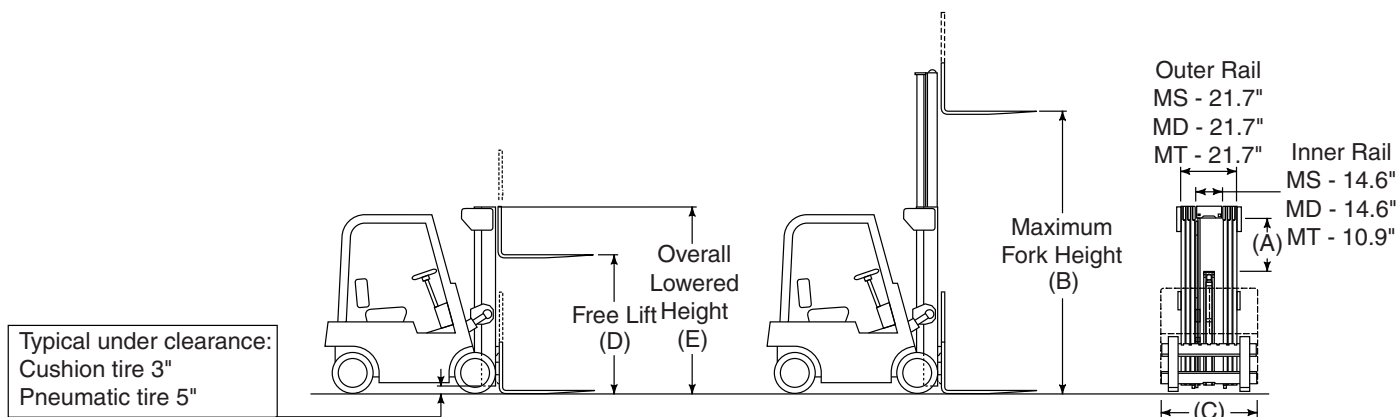
## Other Important Information!

- **Pressures and Flows:** The ES30 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 16 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
ES30 MS	1850	2750	1	11
ES30 MT	2000	2750	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	3500	Cushion	115.5"	77.0"	N/A	35D-MS-C077	5.5"	1.1	1050
		Pneumatic	115.5"	79.0"	N/A	35D-MS-P079			
	3500	Cushion	127.5"	83.0"	N/A	35D-MS-C083	5.5"	1.2	1090
		Pneumatic	127.5"	85.0"	N/A	35D-MS-P085			
	3500	Cushion	139.5"	89.0"	N/A	35D-MS-C089	5.5"	1.3	1140
		Pneumatic	139.5"	91.0"	N/A	35D-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	3500	Cushion	115.5"	77.0"	27.0"	35D-MD-C077	53.0"	1.2	1145
		Pneumatic	115.5"	79.0"	27.0"	35D-MD-P079			
	3500	Cushion	127.5"	83.0"	30.0"	35D-MD-C083	59.0"	1.3	1195
		Pneumatic	127.5"	85.0"	30.0"	35D-MD-P085			
	3500	Cushion	139.5"	89.0"	33.0"	35D-MD-C089	65.0"	1.4	1245
		Pneumatic	139.5"	91.0"	33.0"	35D-MD-P091			
<b>Triple Three Stage MT</b>	3500	Cushion	151.5"	95.0"	36.0"	35D-MD-C095	71.0"	1.5	1290
		Pneumatic	151.5"	97.0"	36.0"	35D-MD-P097			
	3500	Cushion	170.0"	77.0"	27.0"	35D-MT-C077	53.0"	1.7	1410
		Pneumatic	170.0"	79.0"	27.0"	35D-MT-P079			
	3500	Cushion	188.0"	83.0"	30.0"	35D-MT-C083	59.0"	1.8	1475
		Pneumatic	188.0"	85.0"	30.0"	35D-MT-P085			
<b>Triple Three Stage MT</b>	3500	Cushion	202.0"	89.0"	33.0"	35D-MT-C089	65.0"	2.0	1535
		Pneumatic	202.0"	91.0"	33.0"	35D-MT-P091			
	3220	Cushion	216.0"	95.0"	36.0"	35D-MT-C095	71.0"	2.1	1595
		Pneumatic	216.0"	97.0"	36.0"	35D-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	35D-ISS-021A	211
37"	Pneumatic	II	35D-ISS-022A	211
41"	Cushion	II	35D-ISS-023A	224
41"	Pneumatic	II	35D-ISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35D-MC-01A	139
31"	Pneumatic	II	35D-MC-02A	139
37"	Cushion	II	35D-MC-03A	188
37"	Pneumatic	II	35D-MC-04A	188
41"	Cushion	II	35D-MC-05A	204
41"	Pneumatic	II	35D-MC-06A	204

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35D-MC-011A	146
31"	Pneumatic	II	35D-MC-012A	146
37"	Cushion	II	35D-MC-013A	194
37"	Pneumatic	II	35D-MC-014A	194
41"	Cushion	II	35D-MC-015A	210
41"	Pneumatic	II	35D-MC-016A	210

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 35D mast model has a minimum hydraulic system pressure to lift the rated load well as a maximum allowable system pressure. A and recommended flow rate is also noted below. Some applications have successfully used flow rates of 22 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

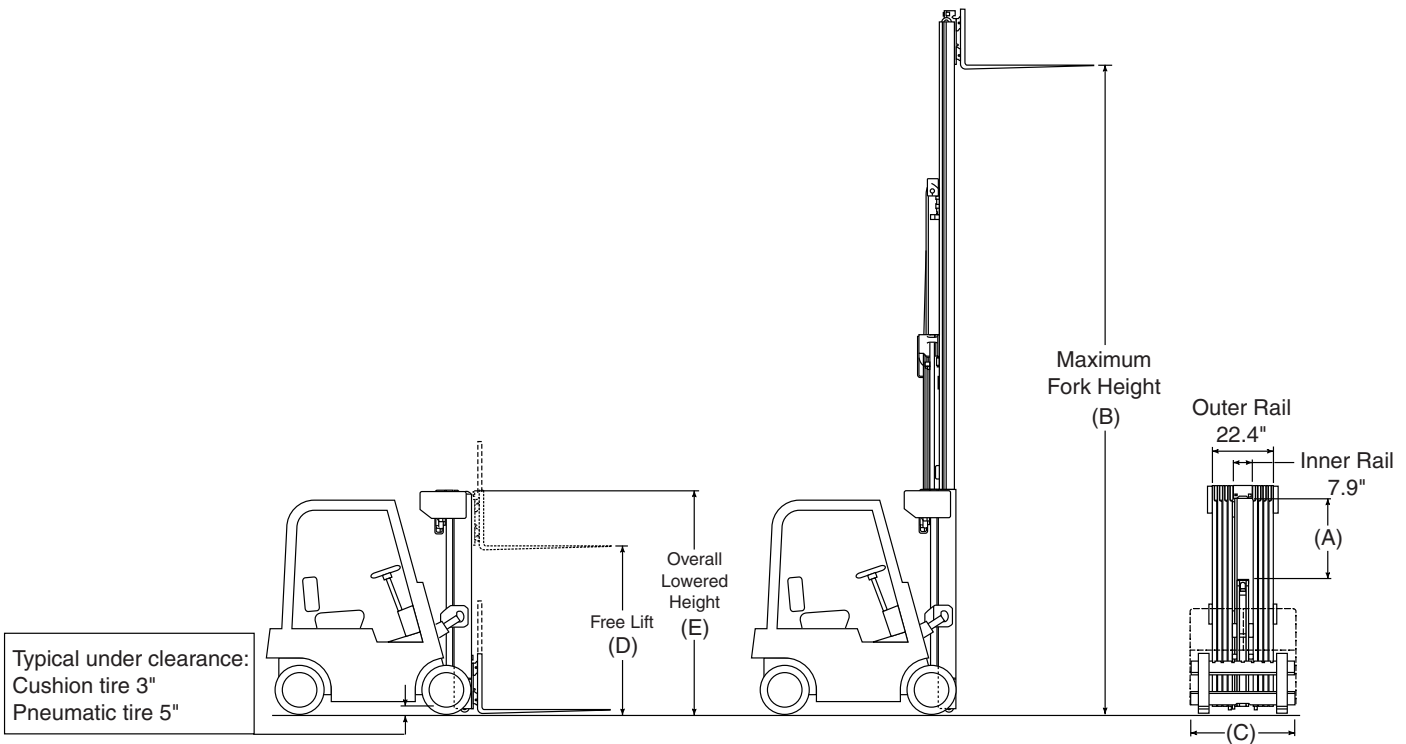
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
35D MS	2100	2750	1	11
35D MS(LP)	1500	2000	1	14.5
35D MD	1950	2750	1	11
35D MD(LP)	1600	2000	1	14.5
35D MT	2200	2750	1	11
35D MT(LP)	1600	2000	1	14.5

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

LP = Low Pressure

# 35D Quad Mast



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	3500	Cushion	222.5"	78.5"	27.6"	35D-MQ-C0785	55.0"	2.1	2005
		Pneumatic	222.5"	80.5"	27.6"	35D-MQ-P0805			
	3500	Cushion	240.5"	83.0"	29.8"	35D-MQ-C0830	59.0"	2.3	2065
		Pneumatic	240.5"	85.0"	29.8"	35D-MQ-P0850			
	3450	Cushion	245.5"	85.0"	30.8"	35D-MQ-C0850	61.0"	2.3	2090
		Pneumatic	245.5"	87.0"	30.8"	35D-MQ-P0870			
	3110	Cushion	258.5"	89.0"	32.8"	35D-MQ-C0890	65.0"	2.5	2140
		Pneumatic	258.8"	91.0"	32.8"	35D-MQ-P0910			
	2940	Cushion	270.5"	93.5"	35.0"	35D-MQ-C0935	70.0"	2.6	2200
		Pneumatic	270.5"	95.5"	35.0"	35D-MQ-P0955			
	2750	Cushion	282.5"	98.0"	37.3"	35D-MQ-C0980	74.0"	2.7	2260
		Pneumatic	282.5"	100.0"	37.3"	35D-MQ-P1000			
	2480	Cushion	294.5"	101.0"	38.8"	35D-MQ-C1010	77.0"	2.8	2300
		Pneumatic	294.5"	103.0"	38.8"	35D-MQ-P1030			
	2350	Cushion	303.5"	104.0"	40.3"	35D-MQ-C1040	80.0"	2.9	2340
		Pneumatic	303.5"	106.0"	40.3"	35D-MQ-P1060			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 168.5" to 312".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

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### Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	35D-MQISS-021A	211
37"	Pneumatic	II	35D-MQISS-022A	211
41"	Cushion	II	35D-MQISS-023A	224
41"	Pneumatic	II	35D-MQISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

### Carriages

#### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35D-MQ-01A	175
31"	Pneumatic	II	35D-MQ-02A	175
37"	Cushion	II	35D-MQ-03A	199
37"	Pneumatic	II	35D-MQ-04A	199
41"	Cushion	II	35D-MQ-05A	214
41"	Pneumatic	II	35D-MQ-06A	214

- **4 Roller Carriages** recommended for fork and hang-on sideshifter applications.

#### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35D-MQ-011A	185
31"	Pneumatic	II	35D-MQ-012A	185
37"	Cushion	II	35D-MQ-013A	209
37"	Pneumatic	II	35D-MQ-014A	209
41"	Cushion	II	35D-MQ-015A	225
41"	Pneumatic	II	35D-MQ-016A	225

- **6 Roller Carriages** recommended for all other attachment applications.

### Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

### Hydraulic Options

#### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

#### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on " **Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

#### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

### Other Important Information!

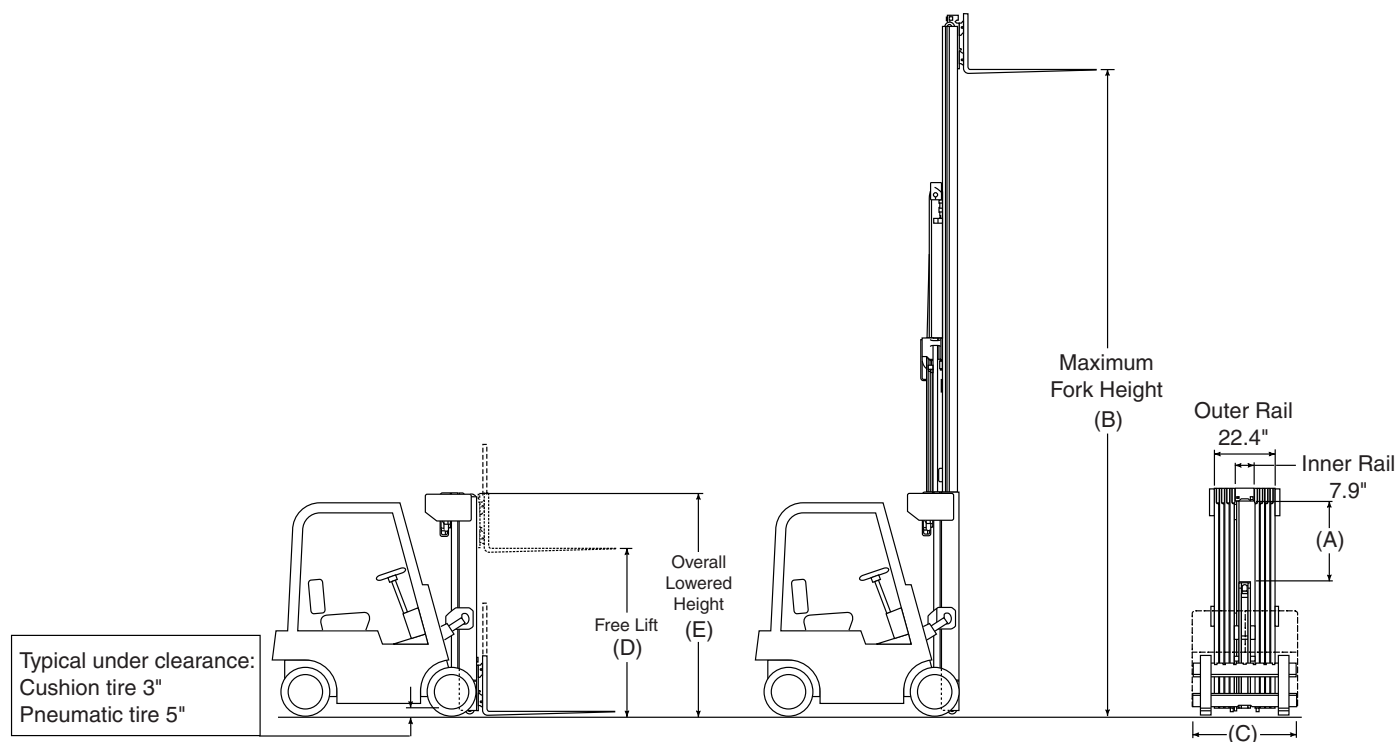
- **Pressures and Flows:** The 35D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 14 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
35D MQ	2600	2750	1	10

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# 35DV Quad Mast



Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	Cushion	222.5"	78.5"	27.6"	35DV-MQ-C0785	55.0"	2.1	2040
	Pneumatic	222.5"	80.5"	27.6"	35DV-MQ-P0805			
	Cushion	240.5"	83.0"	29.8"	35DV-MQ-C0830	59.0"	2.3	2105
	Pneumatic	240.5"	85.0"	29.8"	35DV-MQ-P0850			
	Cushion	245.5"	85.0"	30.8"	35DV-MQ-C0850	61.0"	2.3	2130
	Pneumatic	245.5"	87.0"	30.8"	35DV-MQ-P0870			
	Cushion	258.5"	89.0"	32.8"	35DV-MQ-C0890	65.0"	2.5	2185
	Pneumatic	258.8"	91.0"	32.8"	35DV-MQ-P0910			
	Cushion	270.5"	93.5"	35.0"	35DV-MQ-C0935	70.0"	2.6	2240
	Pneumatic	270.5"	95.5"	35.0"	35DV-MQ-P0955			
	Cushion	282.5"	98.0"	37.3"	35DV-MQ-C0980	74.0"	2.7	2300
	Pneumatic	282.5"	100.0"	37.3"	35DV-MQ-P1000			
	Cushion	294.5"	101.0"	38.8"	35DV-MQ-C1010	77.0"	2.8	2345
	Pneumatic	294.5"	103.0"	38.8"	35DV-MQ-P1030			
	Cushion	303.5"	104.0"	40.3"	35DV-MQ-C1040	80.0"	2.9	2385
	Pneumatic	303.5"	106.0"	40.3"	35DV-MQ-P1060			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 168.5" to 312".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

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# 35DV Quad Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	35DV-MQISS-021A	211
37"	Pneumatic	II	35DV-MQISS-022A	211
41"	Cushion	II	35DV-MQISS-023A	224
41"	Pneumatic	II	35DV-MQISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35DV-MQ-01A	175
31"	Pneumatic	II	35DV-MQ-02A	175
37"	Cushion	II	35DV-MQ-03A	199
37"	Pneumatic	II	35DV-MQ-04A	199
41"	Cushion	II	35DV-MQ-05A	214
41"	Pneumatic	II	35DV-MQ-06A	214

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	35DV-MQ-011A	185
31"	Pneumatic	II	35DV-MQ-012A	185
37"	Cushion	II	35DV-MQ-013A	209
37"	Pneumatic	II	35DV-MQ-014A	209
41"	Cushion	II	35DV-MQ-015A	225
41"	Pneumatic	II	35DV-MQ-016A	225

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 35DV mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 14 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

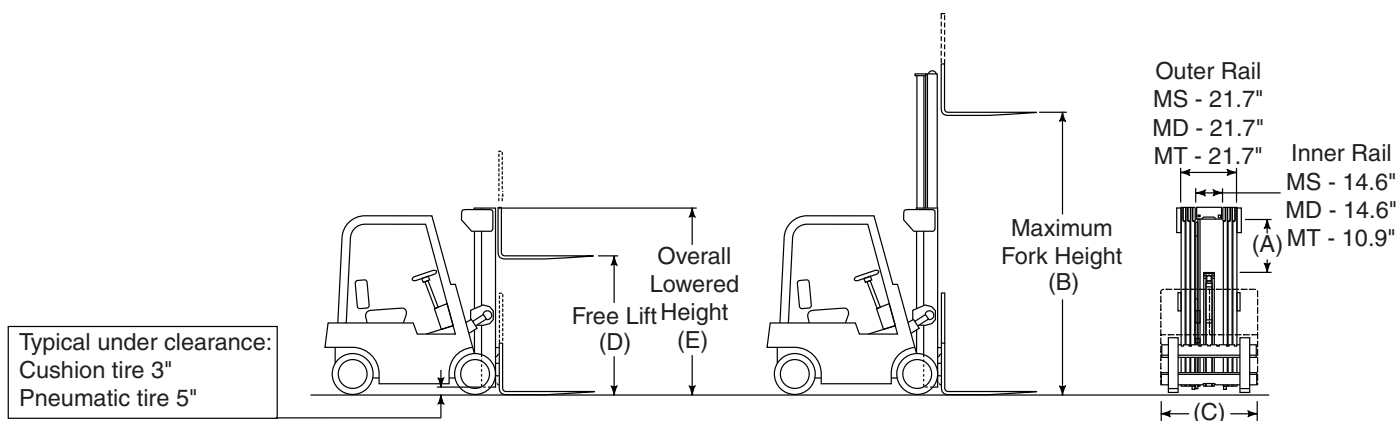
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
35DV MQ	2600	2750	1	10

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# 40D Masts

Standard, Dual, Triple



	Capacity (lb. @ 24\" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	4000	Cushion	115.5"	77.0"	N/A	40D-MS-C077	5.5"	1.1	1050
		Pneumatic	115.5"	79.0"	N/A	40D-MS-P079			
	4000	Cushion	127.5"	83.0"	N/A	40D-MS-C083	5.5"	1.2	1090
		Pneumatic	127.5"	85.0"	N/A	40D-MS-P085			
	4000	Cushion	139.5"	89.0"	N/A	40D-MS-C089	5.5"	1.3	1140
		Pneumatic	139.5"	91.0"	N/A	40D-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	4000	Cushion	151.5"	95.0"	N/A	40D-MS-C095	5.5"	1.4	1185
		Pneumatic	151.5"	97.0"	N/A	40D-MS-P097			
	4000	Cushion	115.5"	77.0"	27.0"	40D-MD-C077	53.0"	1.2	1145
		Pneumatic	115.5"	79.0"	27.0"	40D-MD-P079			
	4000	Cushion	127.5"	83.0"	30.0"	40D-MD-C083	59.0"	1.3	1195
		Pneumatic	127.5"	85.0"	30.0"	40D-MD-P085			
	4000	Cushion	139.5"	89.0"	33.0"	40D-MD-C089	65.0"	1.4	1245
		Pneumatic	139.5"	91.0"	33.0"	40D-MD-P091			
	4000	Cushion	151.5"	95.0"	36.0"	40D-MD-C095	71.0"	1.5	1290
		Pneumatic	151.5"	97.0"	36.0"	40D-MD-P097			
<b>Triple Three Stage MT</b>	4000	Cushion	170.0"	77.0"	27.0"	40D-MT-C077	53.0"	1.7	1410
		Pneumatic	170.0"	79.0"	27.0"	40D-MT-P079			
	4000	Cushion	188.0"	83.0"	30.0"	40D-MT-C083	59.0"	1.8	1475
		Pneumatic	188.0"	85.0"	30.0"	40D-MT-P085			
	3610	Cushion	202.0"	89.0"	33.0"	40D-MT-C089	65.0"	2.0	1535
		Pneumatic	202.0"	91.0"	33.0"	40D-MT-P091			
	3320	Cushion	216.0"	95.0"	36.0"	40D-MT-C095	71.0"	2.1	1595
		Pneumatic	216.0"	97.0"	36.0"	40D-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

Fax: 864-647-5406

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	40D-ISS-020A	211
37"	Pneumatic	II	40D-ISS-021A	211
41"	Cushion	II	40D-ISS-022A	224
41"	Pneumatic	II	40D-ISS-023A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	40D-MC-01A	139
31"	Pneumatic	II	40D-MC-02A	139
37"	Cushion	II	40D-MC-03A	188
37"	Pneumatic	II	40D-MC-04A	188
41"	Cushion	II	40D-MC-05A	204
41"	Pneumatic	II	40D-MC-06A	204

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	40D-MC-011A	146
31"	Pneumatic	II	40D-MC-012A	146
37"	Cushion	II	40D-MC-013A	194
37"	Pneumatic	II	40D-MC-014A	194
41"	Cushion	II	40D-MC-015A	210
41"	Pneumatic	II	40D-MC-016A	210

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

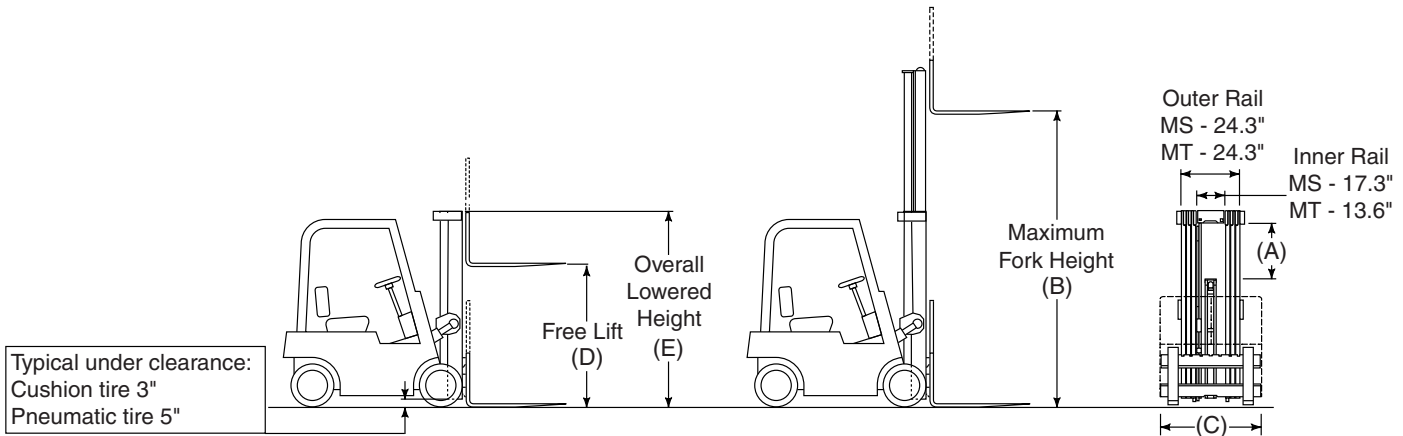
- **Pressures and Flows:** The 40D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 22 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
40D MS	2350	2750	1	11
40D(LP) MS	1700	2000	1	14.5
40D MD	2150	2750	1	11
40D(LP) MD	1800	2000	1	14.5
40D MT	2450	2750	1	11
40D(LP) MT	1750	2000	1	14.5

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

LP = Low Pressure



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	4000	Cushion	81.5"	60.0"	N/A	ES40-MS-C060	5.5	0.9	960
		Pneumatic	81.5"	62.0"	N/A	ES40-MS-P062			
	4000	Cushion	115.5"	77.0"	N/A	ES40-MS-C077	5.5	1.2	1095
		Pneumatic	115.5"	79.0"	N/A	ES40-MS-P079			
	4000	Cushion	127.5"	83.0"	N/A	ES40-MS-C083	5.5	1.4	1140
		Pneumatic	127.5"	85.0"	N/A	ES40-MS-P085			
Triple Stage MT	4000	Cushion	151.5"	95.0"	N/A	ES40-MS-C095	5.5	1.6	1230
		Pneumatic	151.5"	97.0"	N/A	ES40-MS-P097			
	4000	Cushion	170.0"	77.0"	27.3"	ES40-MT-C077	52.4	1.8	1450
		Pneumatic	170.0"	79.0"	27.3"	ES40-MT-P079			
	4000	Cushion	188.0"	83.0"	30.3"	ES40-MT-C083	58.4	2.0	1515
		Pneumatic	188.0"	85.0"	30.3"	ES40-MT-P085			
	3610	Cushion	202.0"	89.0"	33.3"	ES40-MT-C089	64.4	2.2	1585
		Pneumatic	202.0"	91.0"	33.3"	ES40-MT-P091			
	3220	Cushion	216.0"	95.0"	36.3"	ES40-MT-C095	70.4"	2.3	1650
		Pneumatic	216.0"	97.0"	36.3"	ES40-MT-P097			
	2690	Cushion	235.0"	104.0"	39.3"	ES40-MT-C104	79.4"	2.5	1755
		Pneumatic	235.0"	106.0"	39.3"	ES40-MT-P106			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES40-ISS-021A	211
37"	Pneumatic	II	ES40-ISS-022A	
41"	Cushion	II	ES40-ISS-023A	224
41"	Pneumatic	II	ES40-ISS-024A	

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES40-MC-01A	156
37"	Pneumatic	II	ES40-MC-02A	
41"	Cushion	II	ES40-MC-03A	163
41"	Pneumatic	II	ES40-MC-04A	

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	ES40-MC-011A	174
37"	Pneumatic	II	ES40-MC-012A	
41"	Cushion	II	ES40-MC-013A	181
41"	Pneumatic	II	ES40-MC-014A	

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.

- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

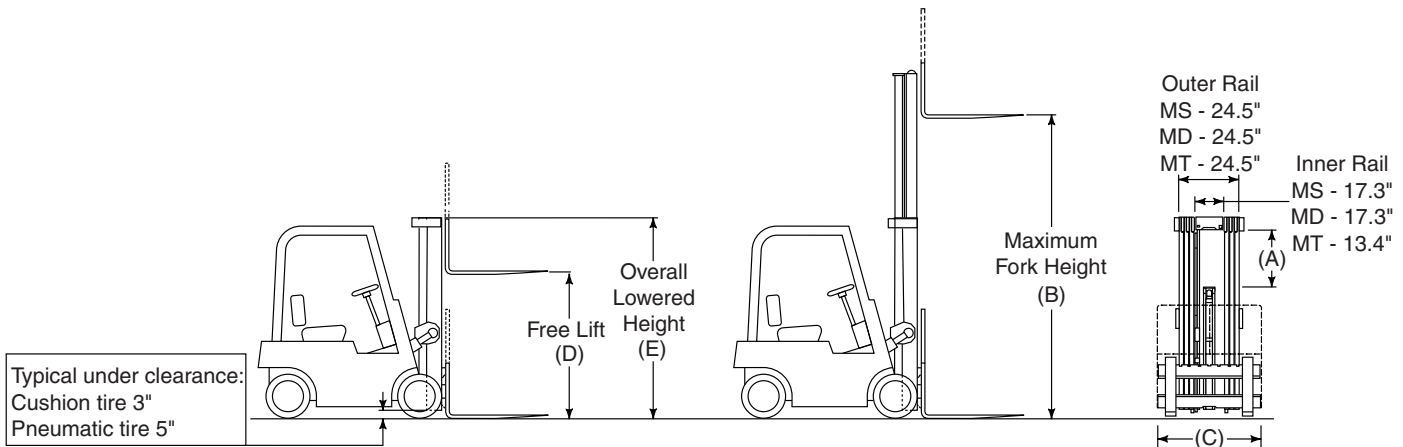
- **Pressures and Flows:** The ES40 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 16 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
ES40 MS	2050	2750	1	11
ES40 MT	2200	2750	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)





	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	4000	Cushion	115.5"	77.0"	N/A	EV40-MS-C077	5.5"	1.1	1030
		Pneumatic	115.5"	79.0"	N/A	EV40-MS-P079			
	4000	Cushion	127.5"	83.0"	N/A	EV40-MS-C083	5.5"	1.2	1075
		Pneumatic	127.5"	85.0"	N/A	EV40-MS-P085			
	4000	Cushion	139.5"	89.0"	N/A	EV40-MS-C089	5.5"	1.3	1121
		Pneumatic	139.5"	91.0"	N/A	EV40-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	4000	Cushion	151.5"	95.0"	N/A	EV40-MS-C095	5.5"	1.4	1167
		Pneumatic	151.5"	97.0"	N/A	EV40-MS-P097			
	4000	Cushion	115.5"	77.0"	27.3"	EV40-MD-C077	52.4"	1.2	1132
		Pneumatic	115.5"	79.0"	27.3"	EV40-MD-P079			
	4000	Cushion	127.5"	83.0"	30.3"	EV40-MD-C083	58.4"	1.3	1183
		Pneumatic	127.5"	85.0"	30.3"	EV40-MD-P085			
	4000	Cushion	139.5"	89.0"	33.3"	EV40-MD-C089	64.4"	1.4	1234
		Pneumatic	139.5"	91.0"	33.3"	EV40-MD-P091			
	4000	Cushion	151.5"	95.0"	36.3"	EV40-MD-C095	70.4"	1.5	1284
		Pneumatic	151.5"	97.0"	36.3"	EV40-MD-P097			
<b>Triple Three Stage MT</b>	4000	Cushion	170.0"	77.0"	27.3"	EV40-MT-C077	52.4"	1.7	1435
		Pneumatic	170.0"	79.0"	27.3"	EV40-MT-P079			
	4000	Cushion	188.0"	83.0"	30.3"	EV40-MT-C083	58.4"	1.8	1505
		Pneumatic	188.0"	85.0"	30.3"	EV40-MT-P085			
	3610	Cushion	202.0"	89.0"	33.3"	EV40-MT-C089	64.4"	2.0	1675
		Pneumatic	202.0"	91.0"	33.3"	EV40-MT-P091			
	3320	Cushion	216.0"	95.0"	36.3"	EV40-MT-C095	70.4"	2.1	1795
		Pneumatic	216.0"	97.0"	36.3"	EV40-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	EV40-ISS-021A	211
37"	Pneumatic	II	EV40-ISS-022A	211
41"	Cushion	II	EV40-ISS-023A	224
41"	Pneumatic	II	EV40-ISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	EV40-MC-01A	134
31"	Pneumatic	II	EV40-MC-02A	134
37"	Cushion	II	EV40-MC-03A	144
37"	Pneumatic	II	EV40-MC-04A	144
41"	Cushion	II	EV40-MC-05A	151
41"	Pneumatic	II	EV40-MC-06A	151

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	EV40-MC-011A	153
31"	Pneumatic	II	EV40-MC-012A	153
37"	Cushion	II	EV40-MC-013A	163
37"	Pneumatic	II	EV40-MC-014A	163
41"	Cushion	II	EV40-MC-015A	170
41"	Pneumatic	II	EV40-MC-016A	170

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

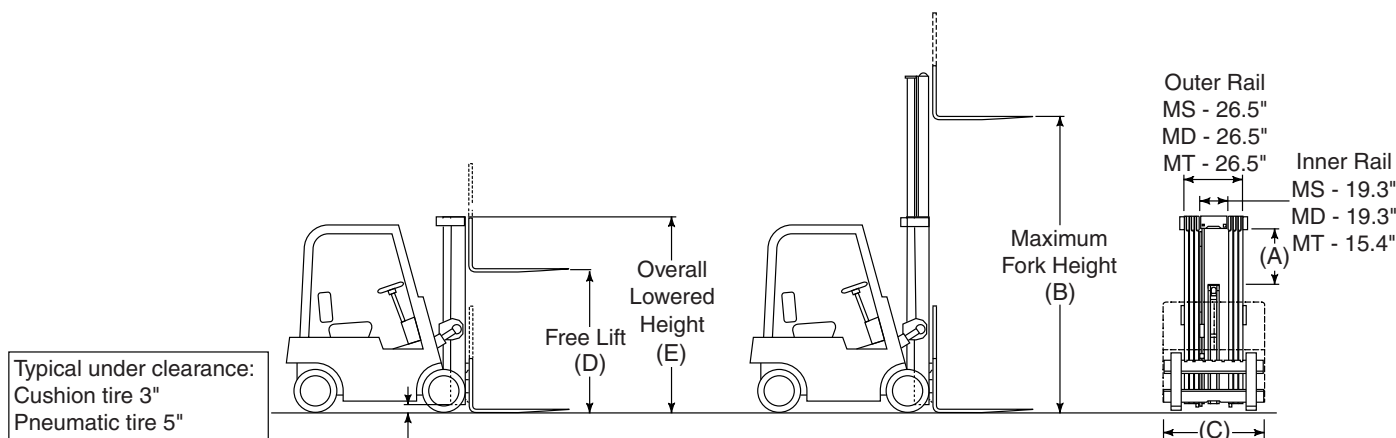
## Other Important Information!

- **Pressures and Flows:** The EV40 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
EV40 MS	2400	2750	1	10
EV40 MD	2200	2750	1	11
EV40 MT	2550	2750	1	10

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	4000	Cushion	115.5"	77.0"	N/A	E40-MS-C077	5.5"	1.1	1045
		Pneumatic	115.5"	79.0"	N/A	E40-MS-P079			
	4000	Cushion	127.5"	83.0"	N/A	E40-MS-C083	5.5"	1.2	1090
		Pneumatic	127.5"	85.0"	N/A	E40-MS-P085			
	4000	Cushion	139.5"	89.0"	N/A	E40-MS-C089	5.5"	1.3	1136
		Pneumatic	139.5"	91.0"	N/A	E40-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	4000	Cushion	151.5"	95.0"	N/A	E40-MS-C095	5.5"	1.4	1182
		Pneumatic	151.5"	97.0"	N/A	E40-MS-P097			
	4000	Cushion	115.5"	77.0"	27.3"	E40-MD-C077	52.4"	1.2	1152
		Pneumatic	115.5"	79.0"	27.3"	E40-MD-P079			
	4000	Cushion	127.5"	83.0"	30.3"	E40-MD-C083	58.4"	1.3	1203
		Pneumatic	127.5"	85.0"	30.3"	E40-MD-P085			
	4000	Cushion	139.5"	89.0"	33.3"	E40-MD-C089	64.4"	1.4	1254
		Pneumatic	139.5"	91.0"	33.3"	E40-MD-P091			
	4000	Cushion	151.5"	95.0"	36.3"	E40-MD-C095	70.4"	1.5	1304
		Pneumatic	151.5"	97.0"	36.3"	E40-MD-P097			
<b>Triple Three Stage MT</b>	4000	Cushion	170.0"	77.0"	27.3"	E40-MT-C077	52.4"	1.7	1460
		Pneumatic	170.0"	79.0"	27.3"	E40-MT-P079			
	4000	Cushion	188.0"	83.0"	30.3"	E40-MT-C083	58.4"	1.8	1530
		Pneumatic	188.0"	85.0"	30.3"	E40-MT-P085			
	3610	Cushion	202.0"	89.0"	33.3"	E40-MT-C089	64.4"	2.0	1600
		Pneumatic	202.0"	91.0"	33.3"	E40-MT-P091			
	3320	Cushion	216.0"	95.0"	36.3"	E40-MT-C095	70.4"	2.1	1670
		Pneumatic	216.0"	97.0"	36.3"	E40-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 272".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.



## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	E40-ISS-021A	211
37"	Pneumatic	II	E40-ISS-022A	211
41"	Cushion	II	E40-ISS-023A	224
41"	Pneumatic	II	E40-ISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	E40-MC-01A	134
31"	Pneumatic	II	E40-MC-02A	134
37"	Cushion	II	E40-MC-03A	144
37"	Pneumatic	II	E40-MC-04A	144
41"	Cushion	II	E40-MC-05A	151
41"	Pneumatic	II	E40-MC-06A	151

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	E40-MC-011A	153
31"	Pneumatic	II	E40-MC-012A	153
37"	Cushion	II	E40-MC-013A	163
37"	Pneumatic	II	E40-MC-014A	163
41"	Cushion	II	E40-MC-015A	170
41"	Pneumatic	II	E40-MC-016A	170

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

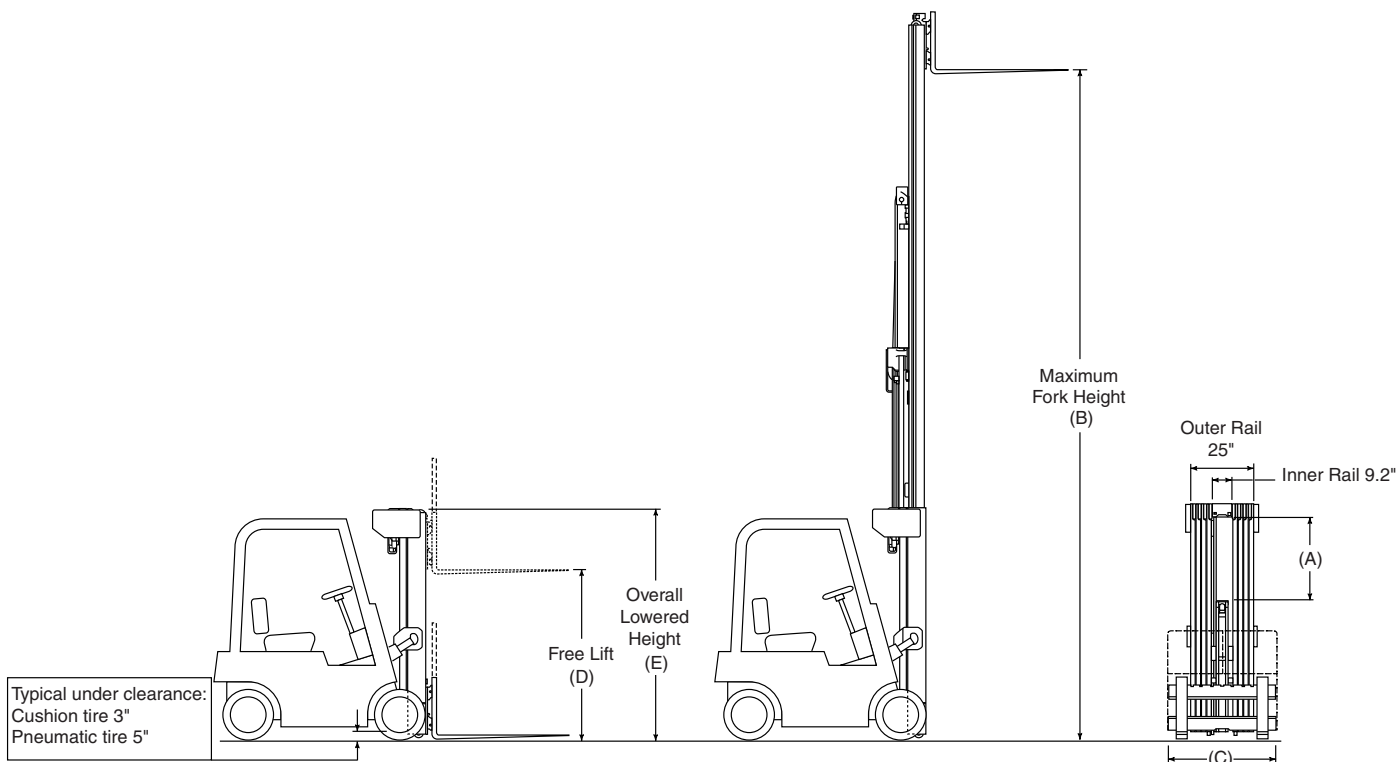
- **Pressures and Flows:** The E40 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
E40 MS	1700	2750	1	11
E40 MD	1850	2750	1	11
E40 MT	1800	2750	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# 45D Quad Mast



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	4500	Cushion	192.5"	71.0"	23.6"	45D-MQ-C071	47.4"	2.6	2130
		Pneumatic	192.5"	73.0"	23.6"	45D-MQ-P073			
	4500	Cushion	216.5"	77.0"	26.6"	45D-MQ-C077	53.4"	3.0	2230
		Pneumatic	216.5"	79.0"	26.6"	45D-MQ-P079			
	4500	Cushion	240.5"	83.0"	29.6"	45D-MQ-C083	59.4"	3.3	2335
		Pneumatic	240.5"	85.0"	29.6"	45D-MQ-P085			
	4000	Cushion	258.5"	89.0"	32.6"	45D-MQ-C089	65.4"	3.5	2435
		Pneumatic	258.5"	91.0"	32.6"	45D-MQ-P091			
	3500	Cushion	276.5"	95.0"	45.6"	45D-MQ-C095	71.4"	3.8	2535
		Pneumatic	276.5"	97.0"	45.6"	45D-MQ-P097			
	3000	Cushion	294.5"	101.0"	38.6"	45D-MQ-C101	77.4"	4.0	2630
		Pneumatic	294.5"	103.0"	38.6"	45D-MQ-P103			
	2500	Cushion	312.5"	107.0"	41.6"	45D-MQ-C107	83.4"	4.3	2730
		Pneumatic	312.5"	109.0"	41.6"	45D-MQ-P109			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 168.5" to 312.5".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

Fax: 864-647-5406

### Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	45D-MQISS-021A	211
37"	Pneumatic	II	45D-MQISS-022A	211
41"	Cushion	II	45D-MQISS-023A	224
41"	Pneumatic	II	45D-MQISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

### Carriages

#### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	45D-MQ-01A	204
31"	Pneumatic	II	45D-MQ-02A	204
37"	Cushion	II	45D-MQ-03A	227
37"	Pneumatic	II	45D-MQ-04A	227
41"	Cushion	II	45D-MQ-05A	243
41"	Pneumatic	II	45D-MQ-06A	243

- **4 Roller Carriages** recommended for hang-on sideshifter applications. **No Class III carriages available.**

#### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	45D-MQ-011A	222
31"	Pneumatic	II	45D-MQ-012A	222
37"	Cushion	II	45D-MQ-013A	245
37"	Pneumatic	II	45D-MQ-014A	245
41"	Cushion	II	45D-MQ-015A	261
41"	Pneumatic	II	45D-MQ-016A	261
49"	Cushion	II	45D-MQ-017A	328
49"	Pneumatic	II	45D-MQ-018A	328
61"	Cushion	II	45D-MQ-019A	358
61"	Pneumatic	II	45D-MQ-020A	358

- **6 Roller Carriages** recommended for rotating and sideshifting attachments. **No class III carriages available.**

### Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

### Hydraulic Options

#### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

#### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on " **Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

#### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

### Other Important Information!

- **Pressures and Flows:** The 45D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 19 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

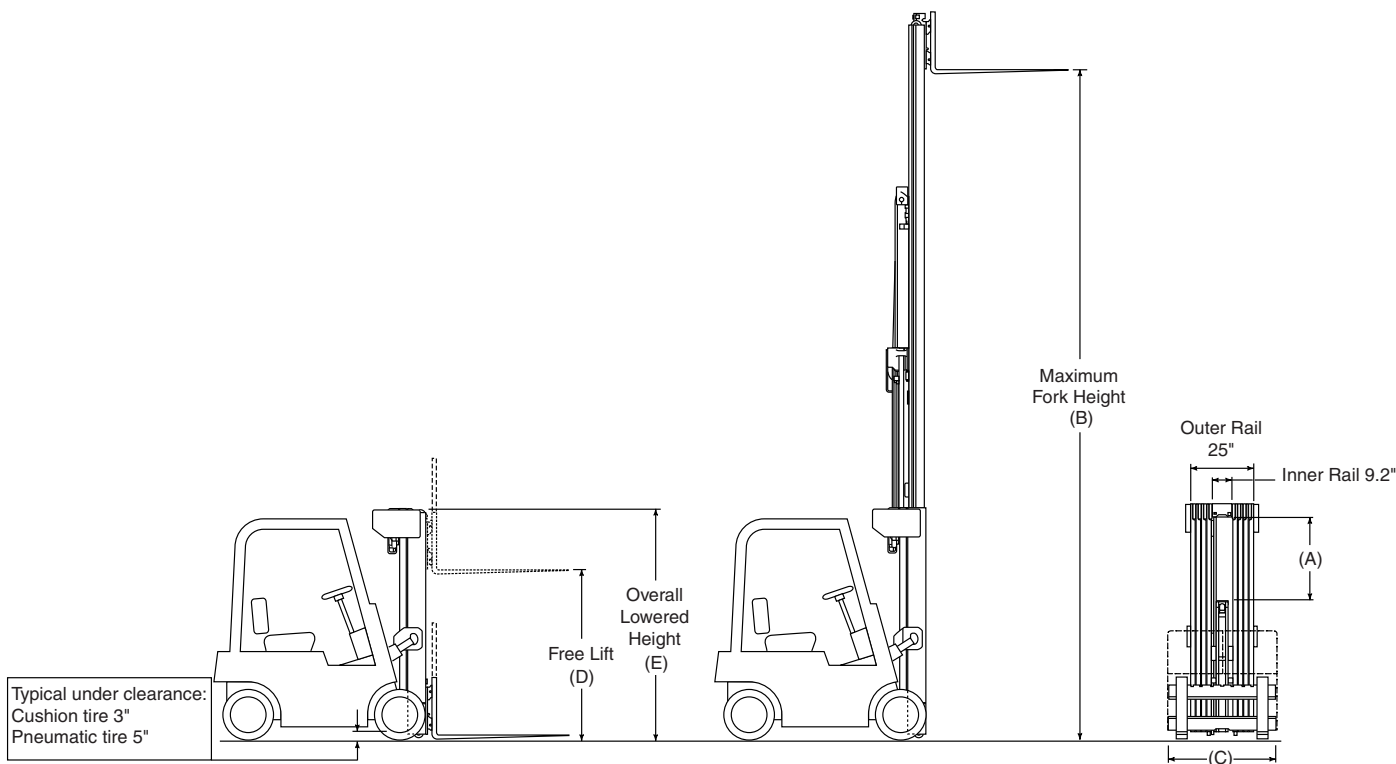
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
45D MQ	2250	2750	1	14

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

# 45DV Quad Mast



Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	4500 Cushion	192.5"	71.0"	23.6"	45DV-MQ-C071	47.4"	2.6	2180
	4500 Pneumatic	192.5"	73.0"	23.6"	45DV-MQ-P073			
	4500 Cushion	216.5"	77.0"	26.6"	45DV-MQ-C077	53.4"	3.0	2285
	4500 Pneumatic	216.5"	79.0"	26.6"	45DV-MQ-P079			
	4500 Cushion	240.5"	83.0"	29.6"	45DV-MQ-C083	59.4"	3.3	2390
	4500 Pneumatic	240.5"	85.0"	29.6"	45DV-MQ-P085			
	4000 Cushion	258.5"	89.0"	32.6"	45DV-MQ-C089	65.4"	3.5	2490
	4000 Pneumatic	258.5"	91.0"	32.6"	45DV-MQ-P091			
	3500 Cushion	276.5"	95.0"	45.6"	45DV-MQ-C095	71.4"	3.8	2590
	3500 Pneumatic	276.5"	97.0"	45.6"	45DV-MQ-P097			
	3000 Cushion	294.5"	101.0"	38.6"	45DV-MQ-C101	77.4"	4.0	2690
	3000 Pneumatic	294.5"	103.0"	38.6"	45DV-MQ-P103			
2500	Cushion	312.5"	107.0"	41.6"	45DV-MQ-C107	83.4"	4.3	2790
	Pneumatic	312.5"	109.0"	41.6"	45DV-MQ-P109			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 168.5" to 312.5".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

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# 45DV Quad Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	45DV-MQISS-021A	211
37"	Pneumatic	II	45DV-MQISS-022A	211
41"	Cushion	II	45DV-MQISS-023A	224
41"	Pneumatic	II	45DV-MQISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	45DV-MQ-01A	204
31"	Pneumatic	II	45DV-MQ-02A	204
37"	Cushion	II	45DV-MQ-03A	227
37"	Pneumatic	II	45DV-MQ-04A	227
41"	Cushion	II	45DV-MQ-05A	243
41"	Pneumatic	II	45DV-MQ-06A	243

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications. **No Class III carriages available.**

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	45DV-MQ-011A	222
31"	Pneumatic	II	45DV-MQ-012A	222
37"	Cushion	II	45DV-MQ-013A	245
37"	Pneumatic	II	45DV-MQ-014A	245
41"	Cushion	II	45DV-MQ-015A	261
41"	Pneumatic	II	45DV-MQ-016A	261
49"	Cushion	II	45DV-MQ-017A	328
49"	Pneumatic	II	45DV-MQ-018A	328
61"	Cushion	II	45DV-MQ-019A	358
61"	Pneumatic	II	45DV-MQ-020A	358

- **6 Roller Carriages** recommended for all other attachment applications. **No class III carriages available.**

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 45DV mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 19 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

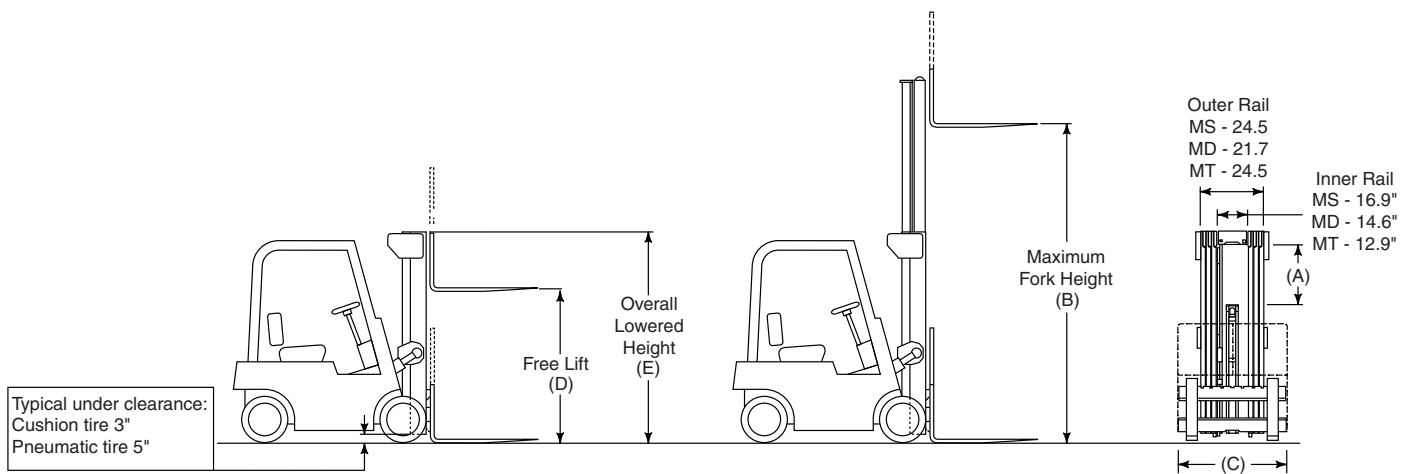
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
45DV MQ	2250	2750	1	14

- \* Pressure in pounds per square inch (psi)
- \*\* Flow rate in gallons per minute (gpm)

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

# 50D Masts

Standard, Dual, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	5000	Cushion	81.5"	60.0"	N/A	50D-MS-C060	4.7"	1.1	1020
		Pneumatic	81.5"	62.0"	N/A	55D-MS-P062			
	5000	Cushion	115.5"	77.0"	N/A	50D-MS-C077	4.7"	1.5	1170
		Pneumatic	115.5"	79.0"	N/A	50D-MS-P079			
	5000	Cushion	127.5"	83.0"	N/A	50D-MS-C083	4.7"	1.7	1220
		Pneumatic	127.5"	85.0"	N/A	50D-MS-P085			
<b>Dual Two Stage MD (with free lift)</b>	5000	Cushion	151.5"	95.0"	N/A	50D-MS-C095	4.7"	2.0	1325
		Pneumatic	151.5"	97.0"	N/A	50D-MS-P097			
	5000	Cushion	106.5"	77.0"	27.0"	50D-MD-C077	49.0"	1.6	1180
		Pneumatic	106.5"	79.0"	27.0"	50D-MD-P079			
	5000	Cushion	118.5"	83.0"	30.0"	50D-MD-C083	55.0"	1.7	1230
		Pneumatic	118.5"	85.0"	30.0"	50D-MD-P085			
	5000	Cushion	130.5"	89.0"	33.0"	50D-MD-C089	61.0"	1.9	1280
		Pneumatic	130.5"	91.0"	33.0"	50D-MD-P091			
	5000	Cushion	142.5"	95.0"	36.0"	50D-MD-C095	67.0"	2.1	1325
		Pneumatic	142.5"	97.0"	36.0"	50D-MD-P097			
<b>Triple Stage MT</b>	5000	Cushion	170.0"	77.4"	27.0"	50D-MT-C077	53.0"	2.3	1615
		Pneumatic	170.0"	79.4"	27.0"	50D-MT-P079			
	5000	Cushion	188.0"	83.4"	30.0"	50D-MT-C083	59.0"	2.6	1690
		Pneumatic	188.0"	85.4"	30.0"	50D-MT-P085			
	4770	Cushion	202.0"	89.4"	33.0"	50D-MT-C089	65.0"	2.8	1770
		Pneumatic	202.0"	91.4"	33.0"	50D-MT-P091			
	4500	Cushion	216.0"	95.4"	36.0"	50D-MT-C095	71.0"	3.0	1840
		Pneumatic	216.0"	97.4"	36.0"	50D-MT-P097			
	4145	Cushion	235.0"	104.4"	39.0"	50D-MT-C104	80.0"	3.2	1950
		Pneumatic	235.0"	106.4"	39.0"	50D-MT-P106			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 235".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

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## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	50D-ISS-021A	211
37"	Pneumatic	II	50D-ISS-022A	211
41"	Cushion	II	50D-ISS-023A	224
41"	Pneumatic	II	50D-ISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	50D-MC-01A	210
37"	Pneumatic	II	50D-MC-02A	210
41"	Cushion	II	50D-MC-03A	226
41"	Pneumatic	II	50D-MC-04A	226

- **4 Roller Carriages** are recommended for for and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	50D-MC-011A	228
37"	Pneumatic	II	50D-MC-012A	228
41"	Cushion	II	50D-MC-013A	244
41"	Pneumatic	II	50D-MC-014A	244
49"	Cushion	II	50D-MC-015A	286
49"	Pneumatic	II	50D-MC-016A	286

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 50D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 18 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

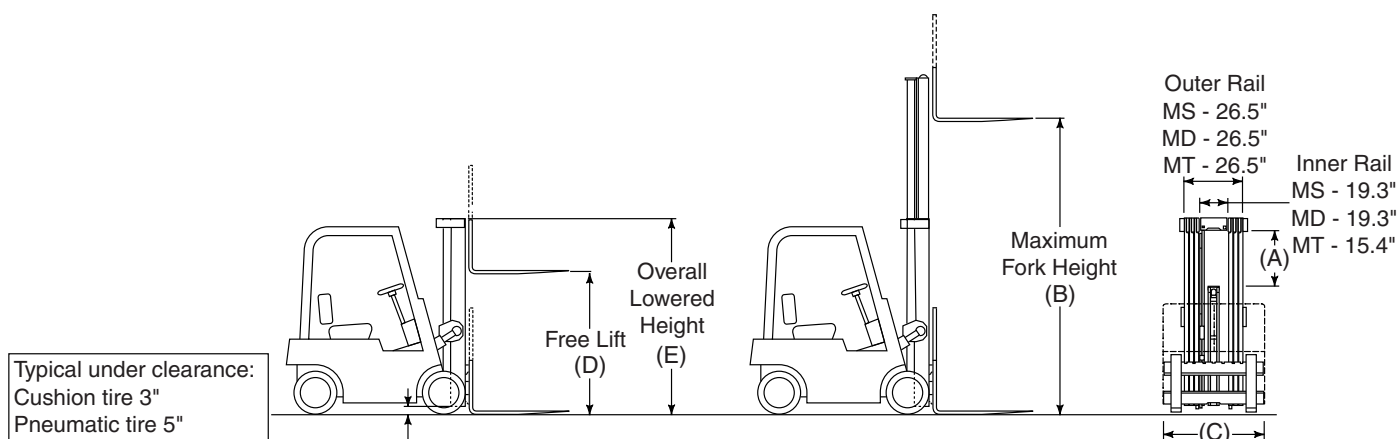
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
50D MS	2250	2750	1	13
50D MD	2600	2750	1	13
50D MT	2150	2750	1	13

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# E50 Masts

Standard, Dual, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	5000	Cushion	81.5"	60.0"	N/A	E50-MS-C060	5.5"	1.1	915
		Pneumatic	81.5"	62.0"	N/A	E55-MS-P062			
	5000	Cushion	115.5"	77.0"	N/A	E50-MS-C077	5.5"	1.5	1045
		Pneumatic	115.5"	79.0"	N/A	E50-MS-P079			
	5000	Cushion	127.5"	83.0"	N/A	E50-MS-C083	5.5"	1.7	1090
		Pneumatic	127.5"	85.0"	N/A	E50-MS-P085			
<b>Dual Two Stage MD (with free lift)</b>	5000	Cushion	151.5"	95.0"	N/A	E50-MS-C095	5.5"	2.0	1182
		Pneumatic	151.5"	97.0"	N/A	E50-MS-P097			
	5000	Cushion	115.5"	77.0"	27.3"	E50-MD-C077	52.4"	1.6	1152
		Pneumatic	115.5"	79.0"	27.3"	E50-MD-P079			
	5000	Cushion	127.5"	83.0"	30.3"	E50-MD-C083	58.4"	1.7	1203
		Pneumatic	127.5"	85.0"	30.3"	E50-MD-P085			
	5000	Cushion	139.5"	89.0"	33.3"	E50-MD-C089	64.4"	1.9	1254
		Pneumatic	139.5"	91.0"	33.3"	E50-MD-P091			
	5000	Cushion	151.5"	95.0"	36.3"	E50-MD-C095	70.4"	2.1	1304
		Pneumatic	151.5"	97.0"	36.3"	E50-MD-P097			
<b>Triple Three Stage MT</b>	5000	Cushion	170.0"	77.0"	27.3"	E50-MT-C077	52.4"	2.3	1460
		Pneumatic	170.0"	79.0"	27.3"	E50-MT-P079			
	5000	Cushion	188.0"	83.0"	30.3"	E50-MT-C083	58.4"	2.6	1530
		Pneumatic	188.0"	85.0"	30.3"	E50-MT-P085			
	4765	Cushion	202.0"	89.0"	33.3"	E50-MT-C089	64.4"	2.8	1600
		Pneumatic	202.0"	91.0"	33.3"	E50-MT-P091			
	4500	Cushion	216.0"	95.0"	36.3"	E50-MT-C095	70.4"	2.9	1670
		Pneumatic	216.0"	97.0"	36.3"	E50-MT-P097			
	4145	Cushion	235.0"	104.0"	39.3"	E50-MT-C104	79.4"	3.2	1770
		Pneumatic	235.0"	106.0"	39.3"	E50-MT-P106			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 290".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

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## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	E50-ISS-021A	211
37"	Pneumatic	II	E50-ISS-022A	211
41"	Cushion	II	E50-ISS-023A	224
41"	Pneumatic	II	E50-ISS-024A	224

- ▶ **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- ▶ **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	E50-MC-01A	162
37"	Pneumatic	II	E50-MC-02A	162
41"	Cushion	II	E50-MC-03A	171
41"	Pneumatic	II	E50-MC-04A	171

- ▶ **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	E50-MC-011A	181
37"	Pneumatic	II	E50-MC-012A	181
41"	Cushion	II	E50-MC-013A	190
41"	Pneumatic	II	E50-MC-014A	190
49"	Cushion	II	E50-MC-015A	208
49"	Pneumatic	II	E50-MC-016A	208

- ▶ **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- ▶ **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- ▶ **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- ▶ Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.

- ▶ Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- ▶ Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- ▶ The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- ▶ **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

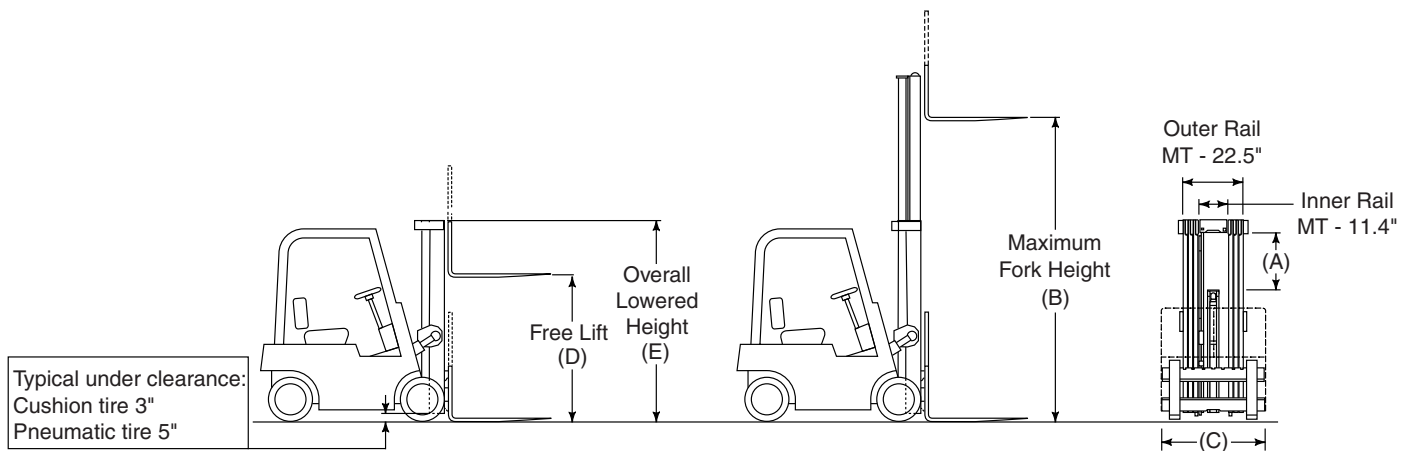
## Other Important Information!

- ▶ **Pressures and Flows:** The E50 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
E50 MS	2050	2750	1	11
E50 MD	2200	2750	1	11
E50 MT	2150	2750	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Triple Stage MT	5000 Cushion	179.0"	80.0"	28.8"	EN50-MT-C080	55.4"	1.7	1495
	5000 Pneumatic	179.0"	82.0"	28.8"	EN50-MT-P082			
	5000 Cushion	188.0"	83.0"	30.3"	EN50-MT-C083	58.4"	1.8	1530
	5000 Pneumatic	188.0"	85.0"	30.3"	EN50-MT-P085			
	4245 Cushion	206.0"	89.0"	33.3"	EN50-MT-C089	64.4"	2.0	1600
	4245 Pneumatic	206.0"	91.0"	33.3"	EN50-MT-P091			
	3600 Cushion	224.0"	95.0"	36.3"	EN50-MT-C095	70.4"	2.2	1670
	3600 Pneumatic	224.0"	97.0"	36.3"	EN50-MT-P097			
	3515 Cushion	242.0"	104.0"	39.3"	EN50-MT-C104	79.4"	2.4	1770
	3515 Pneumatic	242.0"	106.0"	39.3"	EN50-MT-P106			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with a maximum fork heights from 79.5 to 290.0".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

# EN50 Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	EN50-ISS-021A	211
37"	Pneumatic	II	EN50-ISS-022A	
41"	Cushion	II	EN50-ISS-023A	224
41"	Pneumatic	II	EN50-ISS-024A	

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	EN50-MC-01A	162
37"	Pneumatic	II	EN50-MC-02A	
41"	Cushion	II	EN50-MC-03A	171
41"	Pneumatic	II	EN50-MC-04A	

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	EN50-MC-011A	181
37"	Pneumatic	II	EN50-MC-012A	
41"	Cushion	II	EN50-MC-013A	190
41"	Pneumatic	II	EN50-MC-014A	

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The EN50 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 16 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

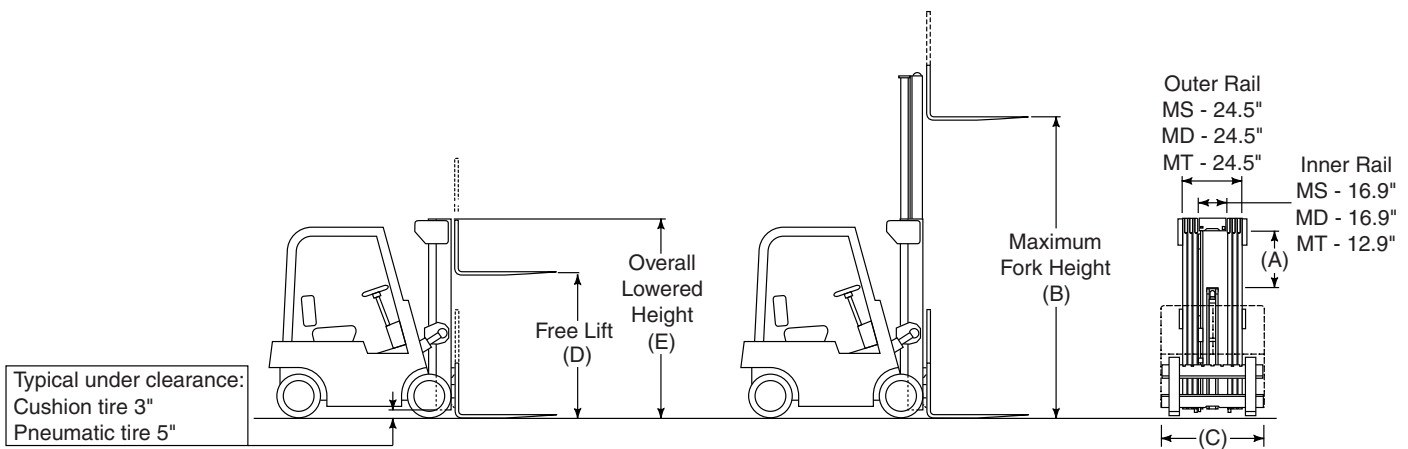
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
EN50 MT	3000	3200	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# 55D Masts

Standard, Dual, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	5500	Cushion	115.5"	77.0"	N/A	55D-MS-C077	4.7"	1.6	1220
		Pneumatic	115.5"	79.0"	N/A	55D-MS-P079			
	5500	Cushion	127.5"	83.0"	N/A	55D-MS-C083	4.7"	1.7	1280
		Pneumatic	127.5"	85.0"	N/A	55D-MS-P085			
	5500	Cushion	139.5"	89.0"	N/A	55D-MS-C089	4.7"	1.9	1335
		Pneumatic	139.5"	91.0"	N/A	55D-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	5500	Cushion	151.5"	95.0"	N/A	55D-MS-C095	4.7"	2.0	1395
		Pneumatic	151.5"	97.0"	N/A	55D-MS-P097			
	5500	Cushion	115.5"	77.0"	27.0"	55D-MD-C077	53.0"	1.6	1300
		Pneumatic	115.5"	79.0"	27.0"	55D-MD-P079			
	5500	Cushion	127.5"	83.0"	30.0"	55D-MD-C083	59.0"	1.8	1355
		Pneumatic	127.5"	85.0"	30.0"	55D-MD-P085			
	5500	Cushion	139.5"	89.0"	33.0"	55D-MD-C089	65.0"	2.0	1410
		Pneumatic	139.5"	91.0"	33.0"	55D-MD-P091			
	5500	Cushion	151.5"	95.0"	36.0"	55D-MD-C095	71.0"	2.1	1465
		Pneumatic	151.5"	97.0"	36.0"	55D-MD-P097			
<b>Triple Three Stage MT</b>	5500	Cushion	170.0"	77.4"	27.0"	55D-MT-C077	53.0"	2.4	1720
		Pneumatic	170.0"	79.4"	27.0"	55D-MT-P079			
	5500	Cushion	188.0"	83.4"	30.0"	55D-MT-C083	59.0"	2.6	1805
		Pneumatic	188.0"	85.4"	30.0"	55D-MT-P085			
	5265	Cushion	202.0"	89.4"	33.0"	55D-MT-C089	65.0"	2.8	1880
		Pneumatic	202.0"	91.4"	33.0"	55D-MT-P091			
	5000	Cushion	216.0"	95.4"	36.0"	55D-MT-C095	71.0"	3.0	1960
		Pneumatic	216.0"	97.4"	36.0"	55D-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 290".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	55D-ISS-021A	211
37"	Pneumatic	II	55D-ISS-022A	211
41"	Cushion	II	55D-ISS-023A	224
41"	Pneumatic	II	55D-ISS-024A	224

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	55D-MC-01A	210
37"	Pneumatic	II	55D-MC-02A	210
41"	Cushion	II	55D-MC-03A	226
41"	Pneumatic	II	55D-MC-04A	226

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	55D-MC-011A	228
37"	Pneumatic	II	55D-MC-012A	228
41"	Cushion	II	55D-MC-013A	244
41"	Pneumatic	II	55D-MC-014A	244
49"	Cushion	II	55D-MC-015A	286
49"	Pneumatic	II	55D-MC-016A	286

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 55D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, (28 gpm for low pressure) but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

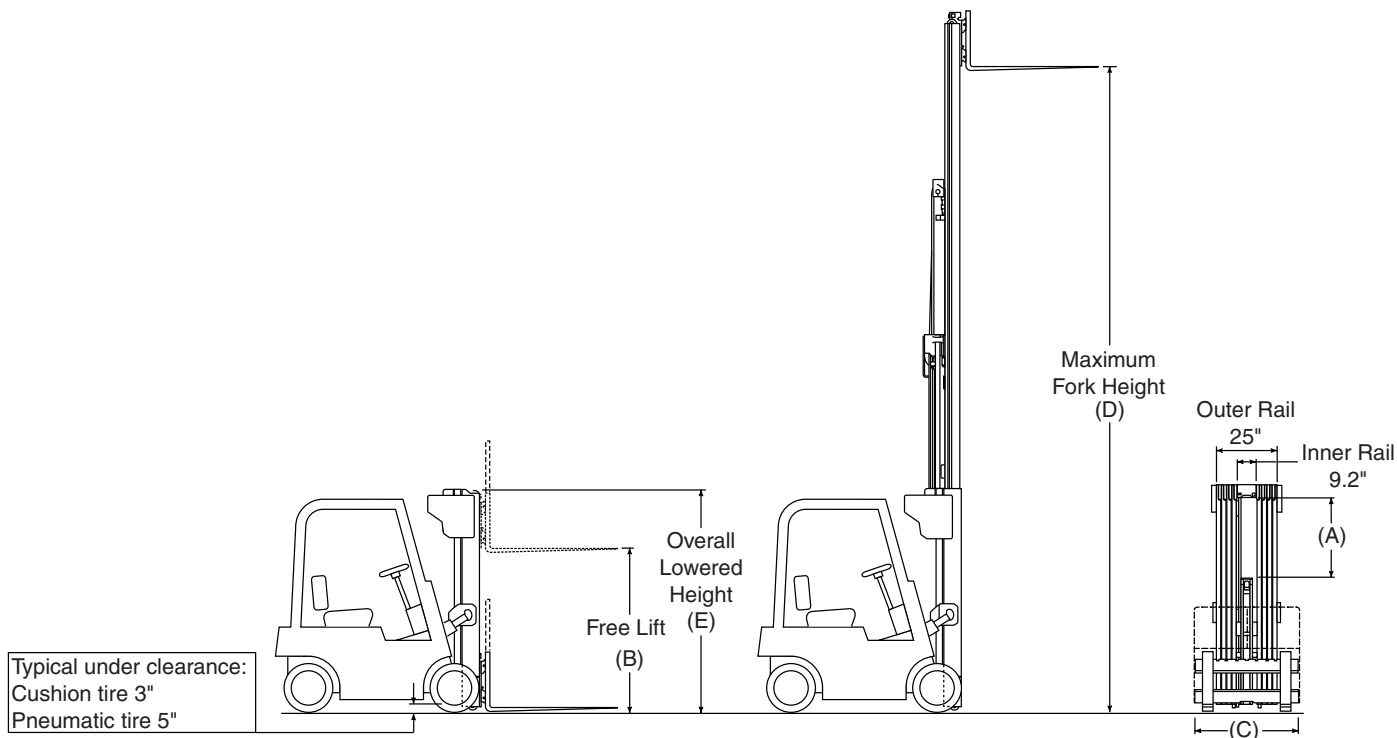
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
55D MS	2150	2750	1	15
55D MS(LP)	1550	2000	1	22
55D MD	2400	2750	1	15
55D MD(LP)	1700	2000	1	22
55D MT	2250	2750	1	15
55D MT(LP)	1650	2000	1	22

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

LP = Low Pressure

# 55D Quad Mast



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	5500	Cushion	176.5"	71.0"	23.6"	55D-MQ-C071	47.4"	2.4	2205
		Pneumatic	176.5"	73.0"	23.6"	55D-MQ-P073			
	5500	Cushion	200.5"	77.0"	26.6"	55D-MQ-C077	53.4"	2.8	2310
		Pneumatic	200.5"	79.0"	26.6"	55D-MQ-P079			
	5500	Cushion	224.5"	83.0"	29.6"	55D-MQ-C083	59.4"	3.1	2415
		Pneumatic	224.5"	85.0"	29.6"	55D-MQ-P085			
	5350	Cushion	245.5"	89.0"	32.6"	55D-MQ-C089	65.4"	3.4	2515
		Pneumatic	245.5"	91.0"	32.6"	55D-MQ-P091			
	4900	Cushion	260.5"	95.0"	45.6"	55D-MQ-C095	71.4"	3.6	2610
		Pneumatic	260.5"	97.0"	45.6"	55D-MQ-P097			
	4450	Cushion	275.5"	101.0"	38.6"	55D-MQ-C101	77.4"	3.8	2705
		Pneumatic	275.5"	103.0"	38.6"	55D-MQ-P103			
	4000	Cushion	290.5"	107.0"	41.6"	55D-MQ-C107	83.4"	4.0	2805
		Pneumatic	290.5"	109.0"	41.6"	55D-MQ-P109			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 152.5" to 315.5".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

Fax: 864-647-5406



# 55D Quad

Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	55D-MQISS-021A	211
37"	Pneumatic	II	55D-MQISS-022A	211
41"	Cushion	II	55D-MQISS-023A	224
41"	Pneumatic	II	55D-MQISS-024A	224

- ▶ **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- ▶ **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	55D-MQ-01A	204
31"	Pneumatic	II	55D-MQ-02A	204
37"	Cushion	II	55D-MQ-03A	227
37"	Pneumatic	II	55D-MQ-04A	227
41"	Cushion	II	55D-MQ-05A	243
41"	Pneumatic	II	55D-MQ-06A	243

- ▶ **4 Roller Carriages** recommended for hang-on sideshifter applications. **Class III carriages also available.**

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	55D-MQ-011A	222
31"	Pneumatic	II	55D-MQ-012A	222
37"	Cushion	II	55D-MQ-013A	245
37"	Pneumatic	II	55D-MQ-014A	245
41"	Cushion	II	55D-MQ-015A	261
41"	Pneumatic	II	55D-MQ-016A	261
49"	Cushion	II	55D-MQ-017A	328
49"	Pneumatic	II	55D-MQ-018A	328
61"	Cushion	II	55D-MQ-019A	358
61"	Pneumatic	II	55D-MQ-020A	358

- ▶ **6 Roller Carriages** recommended for rotating and sideshifting attachments. **Class III carriages are available.**

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- ▶ **Backrests** are also available in 36" and 60" heights and heavy duty designs.

## Hydraulic Options

### Internal Hose Reeving

- ▶ Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- ▶ Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- ▶ Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- ▶ The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- ▶ **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- ▶ **Pressures and Flows:** The 55D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 19 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
55D MQ	2600	2750	1	14

\* Pressure in pounds per square inch (psi)

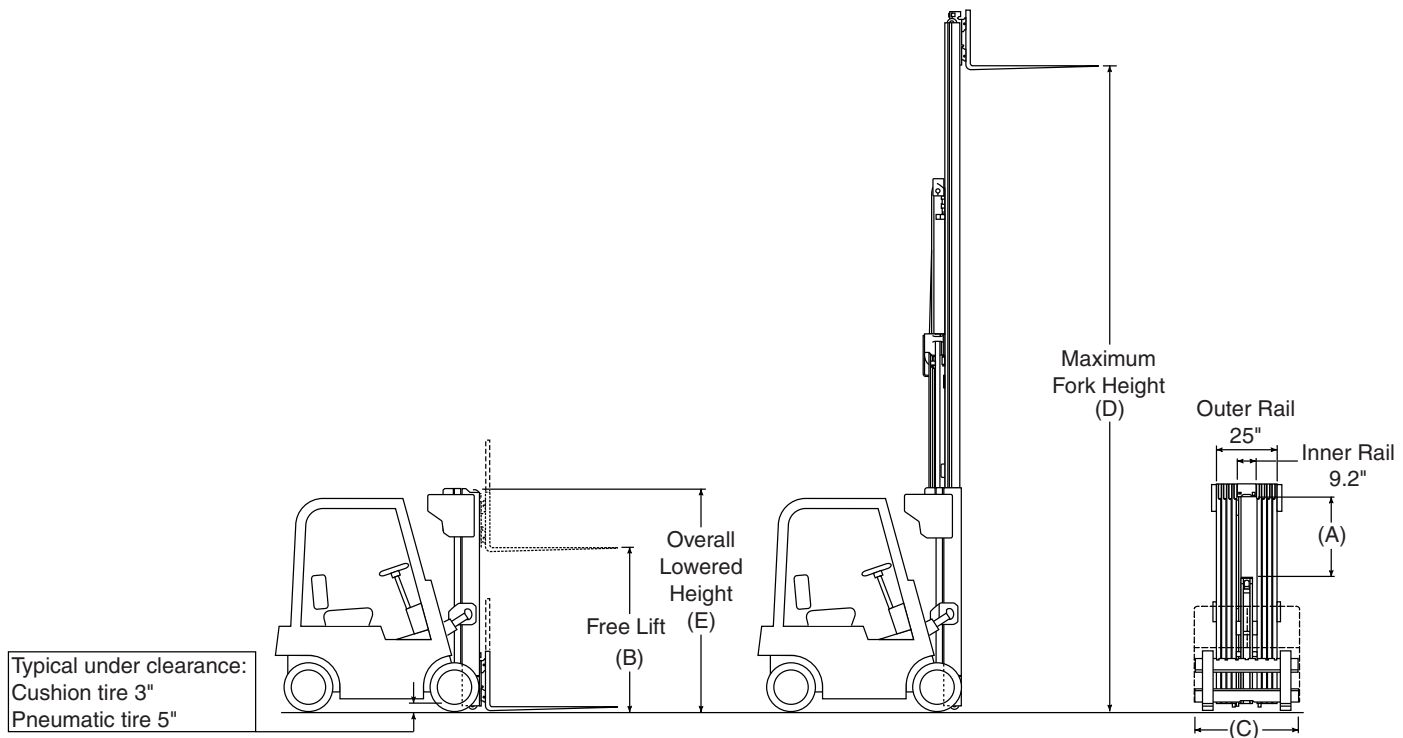
\*\* Flow rate in gallons per minute (gpm)

- ▶ **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

Phone: 864-647-1119

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# 55DV Quad Mast



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	5500	Cushion	176.5"	71.0"	23.6"	55DV-MQ-C071	47.4"	2.4	2255
		Pneumatic	176.5"	73.0"	23.6"	55DV-MQ-P073			
	5500	Cushion	200.5"	77.0"	26.6"	55DV-MQ-C077	53.4"	2.8	2360
		Pneumatic	200.5"	79.0"	26.6"	55DV-MQ-P079			
	5500	Cushion	224.5"	83.0"	29.6"	55DV-MQ-C083	59.4"	3.1	2465
		Pneumatic	224.5"	85.0"	29.6"	55DV-MQ-P085			
	5350	Cushion	245.5"	89.0"	32.6"	55DV-MQ-C089	65.4"	3.4	2570
		Pneumatic	245.5"	91.0"	32.6"	55DV-MQ-P091			
	4900	Cushion	260.5"	95.0"	45.6"	55DV-MQ-C095	71.4"	3.6	2665
		Pneumatic	260.5"	97.0"	45.6"	55DV-MQ-P097			
	4450	Cushion	275.5"	101.0"	38.6"	55DV-MQ-C101	77.4"	3.8	2765
		Pneumatic	275.5"	103.0"	38.6"	55DV-MQ-P103			
	4000	Cushion	290.5"	107.0"	41.6"	55DV-MQ-C107	83.4"	4.0	2860
		Pneumatic	290.5"	109.0"	41.6"	55DV-MQ-P109			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 152.5" to 315.5".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class II carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

Fax: 864-647-5406



# 55DV Quad Integral Sideshifter, Carriage, Load Backrest and Hydraulic Options

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	II	55DV-MQISS-021A	211
37"	Pneumatic	II	55DV-MQISS-022A	211
41"	Cushion	II	55DV-MQISS-023A	224
41"	Pneumatic	II	55DV-MQISS-024A	224

- ▶ **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- ▶ **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	55DV-MQ-01A	204
31"	Pneumatic	II	55DV-MQ-02A	204
37"	Cushion	II	55DV-MQ-03A	227
37"	Pneumatic	II	55DV-MQ-04A	227
41"	Cushion	II	55DV-MQ-05A	243
41"	Pneumatic	II	55DV-MQ-06A	243

- ▶ **4 Roller Carriages** are recommended for for and hang-on sideshifter applications. **Class III carriages also available.**

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
31"	Cushion	II	55DV-MQ-011A	222
31"	Pneumatic	II	55DV-MQ-012A	222
37"	Cushion	II	55DV-MQ-013A	245
37"	Pneumatic	II	55DV-MQ-014A	245
41"	Cushion	II	55DV-MQ-015A	261
41"	Pneumatic	II	55DV-MQ-016A	261
49"	Cushion	II	55DV-MQ-017A	328
49"	Pneumatic	II	55DV-MQ-018A	328
61"	Cushion	II	55DV-MQ-019A	358
61"	Pneumatic	II	55DV-MQ-020A	358

- ▶ **6 Roller Carriages** recommended for all other attachment applications. **Class III carriages are available.**

## Load Backrests

Width	Height	Ref #	Weight (lb.)
31"	48"	684770	75
37"	48"	684773	83
41"	48"	684776	90
49"	48"	684779	99

- ▶ **Backrests** are also available in 36" and 60" heights and heavy duty designs.

## Hydraulic Options

### Internal Hose Reeving

- ▶ Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- ▶ Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- ▶ Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- ▶ The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- ▶ **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- ▶ **Pressures and Flows:** The 55DV mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 19 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
55DV MQ	2600	2750	1	14

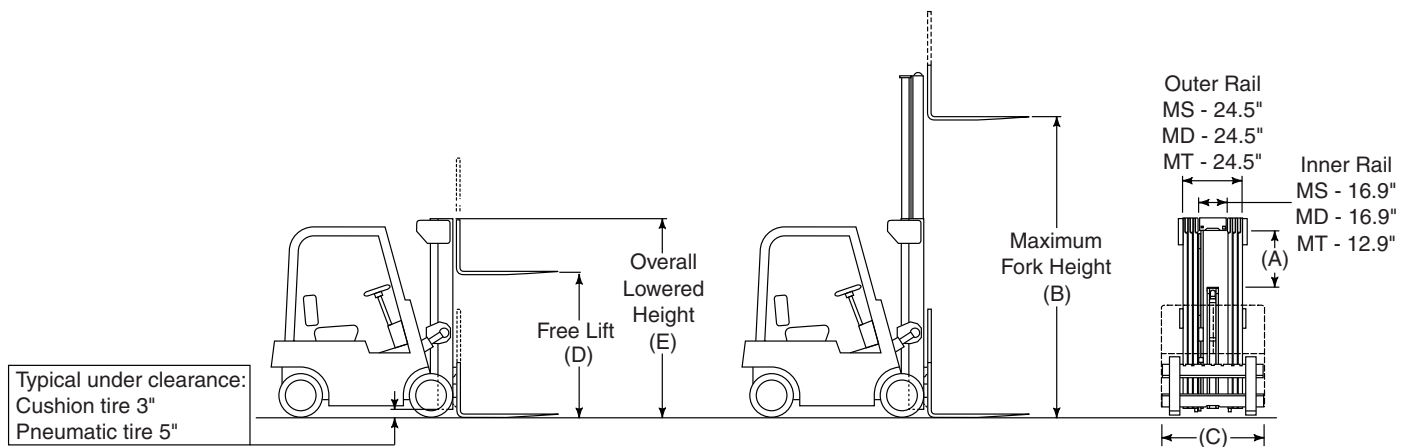
\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

- ▶ **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

# 60D Masts

Standard, Dual, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	6000	Cushion	115.5"	77.0"	N/A	60D-MS-C077	4.7"	1.6	1235
		Pneumatic	115.5"	79.0"	N/A	60D-MS-P079			
	6000	Cushion	127.5"	83.0"	N/A	60D-MS-C083	4.7"	1.7	1305
		Pneumatic	127.5"	85.0"	N/A	60D-MS-P085			
	5770	Cushion	139.5"	89.0"	N/A	60D-MS-C089	4.7"	1.9	1350
		Pneumatic	139.5"	91.0"	N/A	60D-MS-P091			
Dual Two Stage MD (with free lift)	5500	Cushion	151.5"	95.0"	N/A	60D-MS-C095	4.7"	2.0	1410
		Pneumatic	151.5"	97.0"	N/A	60D-MS-P097			
	6000	Cushion	114.0"	77.0"	27.0"	60D-MD-C077	55.0"	1.6	1310
		Pneumatic	114.0"	79.0"	27.0"	60D-MD-P079			
	6000	Cushion	126.0"	83.0"	30.0"	60D-MD-C083	61.0"	1.8	1370
		Pneumatic	126.0"	85.0"	30.0"	60D-MD-P085			
	5770	Cushion	138.0"	89.0"	33.0"	60D-MD-C089	67.0"	1.9	1425
		Pneumatic	138.0"	91.0"	33.0"	60D-MD-P091			
	5500	Cushion	150.0"	95.0"	36.0"	60D-MD-C095	73.0"	2.1	1480
		Pneumatic	150.0"	97.0"	36.0"	60D-MD-P097			
Triple Three Stage MT	6000	Cushion	165.0"	77.4"	27.0"	60D-MT-C077	53.0"	2.3	1735
		Pneumatic	165.0"	79.4"	27.0"	60D-MT-P079			
	6000	Cushion	183.0"	83.4"	30.0"	60D-MT-C083	59.0"	2.5	1815
		Pneumatic	183.0"	85.4"	30.0"	60D-MT-P085			
	5720	Cushion	197.0"	89.4"	33.0"	60D-MT-C089	65.0"	2.7	1895
		Pneumatic	197.0"	91.4"	33.0"	60D-MT-P091			
	5440	Cushion	211.0"	95.4"	36.0"	60D-MT-C095	71.0"	2.9	1970
		Pneumatic	211.0"	97.4"	36.0"	60D-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 290".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	60D-ISS-021A	304
37"	Pneumatic	III	60D-ISS-022A	304
41"	Cushion	III	60D-ISS-023A	314
41"	Pneumatic	III	60D-ISS-024A	314

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	60D-MC-01A	215
37"	Pneumatic	III	60D-MC-02A	215
41"	Cushion	III	60D-MC-03A	231
41"	Pneumatic	III	60D-MC-04A	231

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	60D-MC-011A	253
37"	Pneumatic	III	60D-MC-012A	253
41"	Cushion	III	60D-MC-013A	249
41"	Pneumatic	III	60D-MC-014A	249
49"	Cushion	III	60D-MC-015A	291
49"	Pneumatic	III	60D-MC-016A	291

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684785	84
41"	48"	684788	91
49"	48"	684791	100

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS, MD and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 60D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, (28 gpm for low pressure) but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. See page 58 of this publication for more information on the variables that affect the operation of the mast.

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
60D MS	2400	2750	1	15
60D(LP) MS	1700	2000	1	22
60D MD	2600	2750	1	15
60D(LP) MD	1850	2000	1	22
60D MT	2450	2750	1	15
60D(LP) MT	1800	2000	1	22

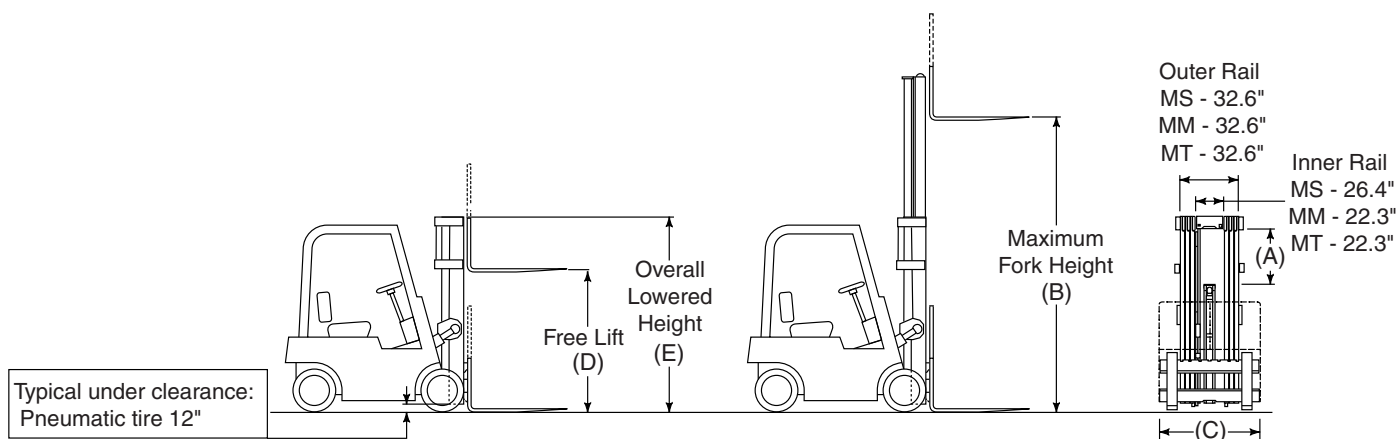
\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

LP = Low Pressure

# 60/80RT Rough Terrain Masts

Standard, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	6000	Pneumatic	144.0"	109.0"	NA	NA	NA	1.5	2054
	8000	Pneumatic	180.0"	127.0"	NA	NA	NA	1.8	2377
<b>Triple Stage Non Free Lift MM</b>	6000	Pneumatic	264.0"	127.0"	NA	NA	NA	2.0	2567
	8000	Pneumatic	264.0"	127.0"	NA	NA	NA	2.0	3198
<b>Triple Stage Free Lift MT</b>	6000	Pneumatic	180.0"	93.0"	41"	NA	60.0"	1.5	2404
		Pneumatic	264.0"	125.0"	57"	NA	90.5"	1.7	2867
	8000	Pneumatic	180.0"	93.0"	41"	NA	60.0"	1.4	2677
		Pneumatic	264.0"	125.0"	57"	NA	90.5"	1.7	3507

► Specify carriage and load backrest separately.

► Specifications noted within this page reflect the use of a 66" wide 4 roller pin type carriage and 48" high load backrest. Free lift specification does not include a load backrest.

# 60/80RT Rough Terrain

Carriage, Load Backrest and Hydraulic Options

## Carriages

### 4 Roller Pin Type Carriage

Width "C"	Truck Type	Pin Type	Pin Diameter	Weight (lb.)
66"	Pneumatic	Yes	2.00" (6000 lb)	513
72"	Pneumatic	Yes	2.25" (8000 lb)	544
84"	Pneumatic	Yes		574

### 4 Roller ITA Carriage

Width "C"	Truck Type	ITA Class	Reference #	Weight (lb.)
66"	Pneumatic	III	N/A	579
72"	Pneumatic	III	N/A	616
84"	Pneumatic	III	N/A	689

### Integrated Fork Positioning Carriages

Width "C"	Truck Type	Pin Type	Pin Diameter	Weight (lb.)
66"	Pneumatic	Yes	2.00" (6000 lb) 2.25" (8000 lb)	593 627

## Backrests

Width	Height	Weight (lb.)
66"	48"	122
72"	48"	146
84"	48"	170

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Hydraulic Oil Flow Rates**" to determine what mast options are required.

## Other Important Information!

- **Pressures and Flows:** The 60RT mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 22 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

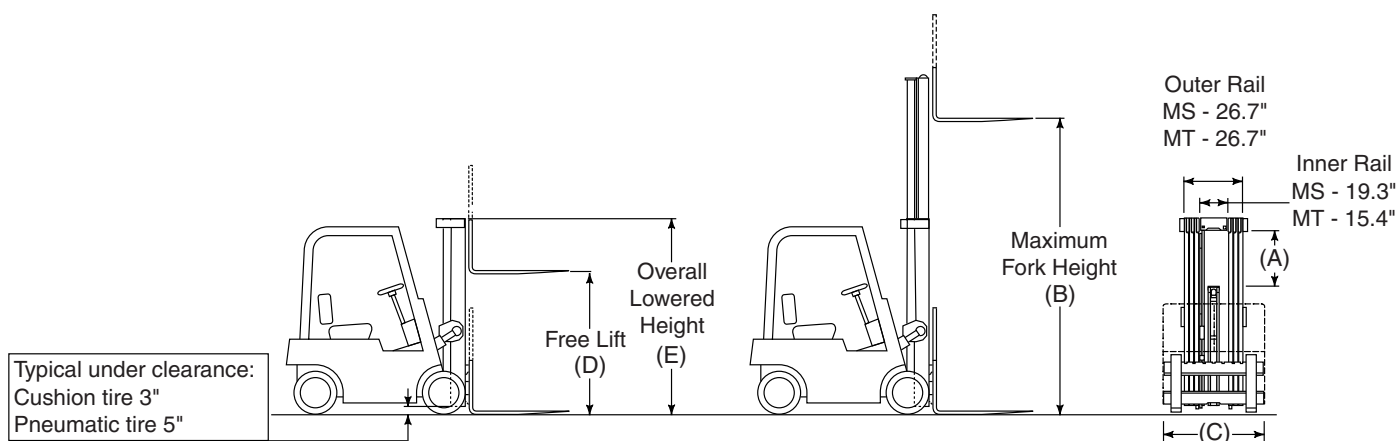
	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
60RT MM	2300	2750	1	16
60RT MS	2100	2750	1	16
60RT MT	2250	2750	1	16
80RT MM	2200	2750	1	16
80RT MS	2000	2750	1	16
80RT MT	2150	2750	1	16

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# E60 Masts

Standard, Dual, Triple



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	6000	Cushion	115.5"	77.0"	N/A	E60-MS-C077	5.5"	1.5	1150
		Pneumatic	115.5"	79.0"	N/A	E60-MS-P079			
	6000	Cushion	127.5"	83.0"	N/A	E60-MS-C083	5.5"	1.6	1200
		Pneumatic	127.5"	85.0"	N/A	E60-MS-P085			
	5770	Cushion	139.5"	89.0"	N/A	E60-MS-C089	5.5"	1.8	1250
		Pneumatic	139.5"	91.0"	N/A	E60-MS-P091			
<b>Dual Two Stage MD (with free lift)</b>	5500	Cushion	151.5"	95.0"	N/A	E60-MS-C095	5.5"	2.0	1270
		Pneumatic	151.5"	97.0"	N/A	E60-MS-P097			
	6000	Cushion	114.0"	77.0"	27.3"	E60-MD-C077	50.7"	1.6	1267
		Pneumatic	114.0"	79.0"	27.3"	E60-MD-P079			
	6000	Cushion	126.0"	83.0"	30.3"	E60-MD-C083	56.7"	1.7	1318
		Pneumatic	126.0"	85.0"	30.3"	E60-MD-P085			
	5770	Cushion	138.0"	89.0"	33.3"	E60-MD-C089	62.7"	1.9	1370
		Pneumatic	138.0"	91.0"	33.3"	E60-MD-P091			
	5500	Cushion	150.0"	95.0"	36.3"	E60-MD-C095	68.7"	2.1	1422
		Pneumatic	150.0"	97.0"	36.3"	E60-MD-P097			
<b>Triple Three Stage MT</b>	6000	Cushion	165.0"	77.0"	27.3"	E60-MT-C077	50.7"	2.2	1580
		Pneumatic	165.0"	79.0"	27.3"	E60-MT-P079			
	6000	Cushion	183.0"	83.0"	30.3"	E60-MT-C083	56.7"	2.5	1650
		Pneumatic	183.0"	85.0"	30.3"	E60-MT-P085			
	5720	Cushion	197.0"	89.0"	33.3"	E60-MT-C089	62.7"	2.7	1725
		Pneumatic	197.0"	91.0"	33.3"	E60-MT-P091			
	5440	Cushion	211.0"	95.0"	36.3"	E60-MT-C095	68.7"	2.9	1800
		Pneumatic	211.0"	97.0"	36.3"	E60-MT-P097			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 290".
- Specifications noted within this page reflect the use of a 37" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

Fax: 864-647-5406



## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E60-ISS-021A	304
37"	Pneumatic	III	E60-ISS-022A	304
41"	Cushion	III	E60-ISS-023A	314
41"	Pneumatic	III	E60-ISS-024A	314

► **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.

► **Integral sideshifters improve mast capacity in hang-on sideshifters.** Consult your OEM for rating information.

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E60-MC-01A	195
37"	Pneumatic	III	E60-MC-02A	195
41"	Cushion	III	E60-MC-03A	206
41"	Pneumatic	III	E60-MC-04A	206

► **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E60-MC-011A	211
37"	Pneumatic	III	E60-MC-012A	211
41"	Cushion	III	E60-MC-013A	221
41"	Pneumatic	III	E60-MC-014A	221
49"	Cushion	III	E60-MC-015A	241
49"	Pneumatic	III	E60-MC-016A	241

► **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684785	84
41"	48"	684788	91
49"	48"	684791	100

► **Backrests** are also available in 36" and 60" heights and heavy duty designs.

► **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

► Single and dual function internal hose reeving is available for MS, MD and MT masts.

For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.

► Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

► Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

► The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS, MD and MT masts.

► **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS, MD and MT masts. Contact Lift Technologies for complete specifications.

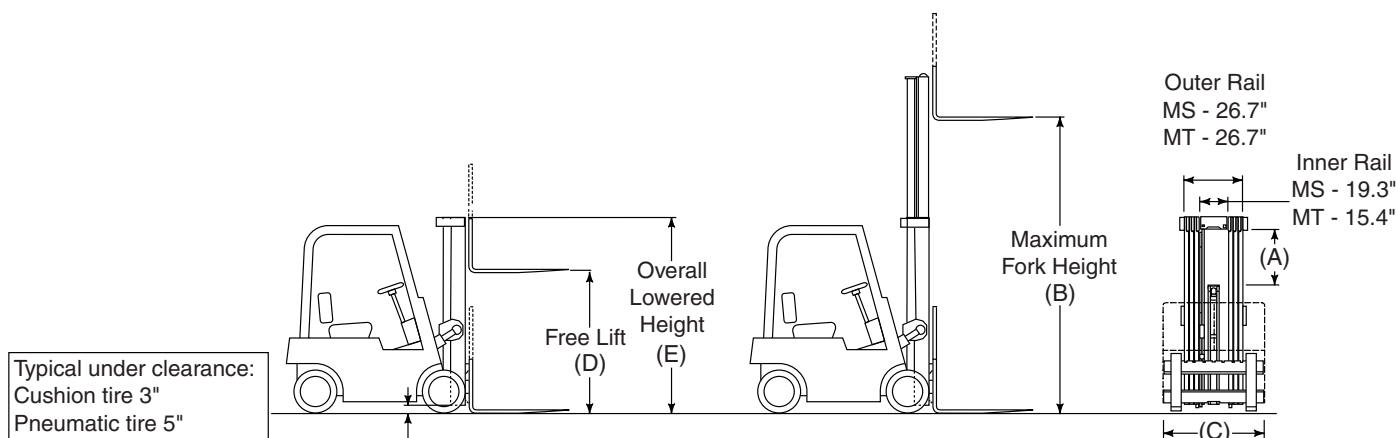
## Other Important Information!

► **Pressures and Flows:** The E60 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 20 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
E60 MS	2450	2750	1	11
E60 MD	2600	2750	1	11
E60 MT	2550	2750	1	11

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	6500	Cushion	109.5"	77.0"	N/A	E65-MS-C077	5.5"	1.5	1260
		Pneumatic	109.5"	79.0"	N/A	E65-MS-P079			
	6500	Cushion	121.5"	83.0"	N/A	E65-MS-C083	5.5"	1.7	1310
		Pneumatic	121.5"	85.0"	N/A	E65-MS-P085			
	6424	Cushion	133.5"	89.0"	N/A	E65-MS-C089	5.5"	1.8	1360
		Pneumatic	133.5"	91.0"	N/A	E65-MS-P091			
<b>Triple Three Stage MT</b>	6120	Cushion	145.5"	95.0"	N/A	E65-MS-C095	5.5"	2.0	1410
		Pneumatic	145.5"	97.0"	N/A	E65-MS-P097			
	6500	Cushion	159.0"	77.0"	27.3"	E65-MT-C077	50.73"	2.3	1700
		Pneumatic	159.0"	79.0"	27.3"	E65-MT-P079			
	6500	Cushion	177.0"	83.0"	30.3"	E65-MT-C083	56.73"	2.5	1775
		Pneumatic	177.0"	85.0"	30.3"	E65-MT-P085			
	5998	Cushion	199.0"	93.0"	35.3"	E65-MT-C093	66.73"	2.7	1870
		Pneumatic	199.0"	95.0"	35.3"	E65-MT-P095			
	5705	Cushion	210.0"	98.0"	37.8"	E65-MT-C098	71.73"	2.9	1935
		Pneumatic	210.0"	100.0"	37.8"	E65-MT-P100			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79.5" to 285".
- Specifications noted within this page reflect the use of a 47" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E65-ISS-021A	304
37"	Pneumatic	III	E65-ISS-022A	304
41"	Cushion	III	E65-ISS-023A	311
41"	Pneumatic	III	E65-ISS-024A	311

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in hang-on sideshifters.** Consult your OEM for rating information.

## Carriages

### 4 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E65-MC-01A	195
37"	Pneumatic	III	E65-MC-02A	195
41"	Cushion	III	E65-MC-03A	206
41"	Pneumatic	III	E65-MC-04A	206

- **4 Roller Carriages** are recommended for fork and hang-on sideshifter applications.

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
37"	Cushion	III	E65-MC-011A	211
37"	Pneumatic	III	E65-MC-012A	211
41"	Cushion	III	E65-MC-013A	221
41"	Pneumatic	III	E65-MC-014A	221
49"	Cushion	III	E65-MC-015A	241
49"	Pneumatic	III	E65-MC-016A	241

- **6 Roller Carriages** are recommended for all other attachment applications.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
37"	48"	684785	84
41"	48"	684788	91
49"	48"	684791	100

- **Backrests** are also available in 36" and 60" heights and heavy duty designs.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

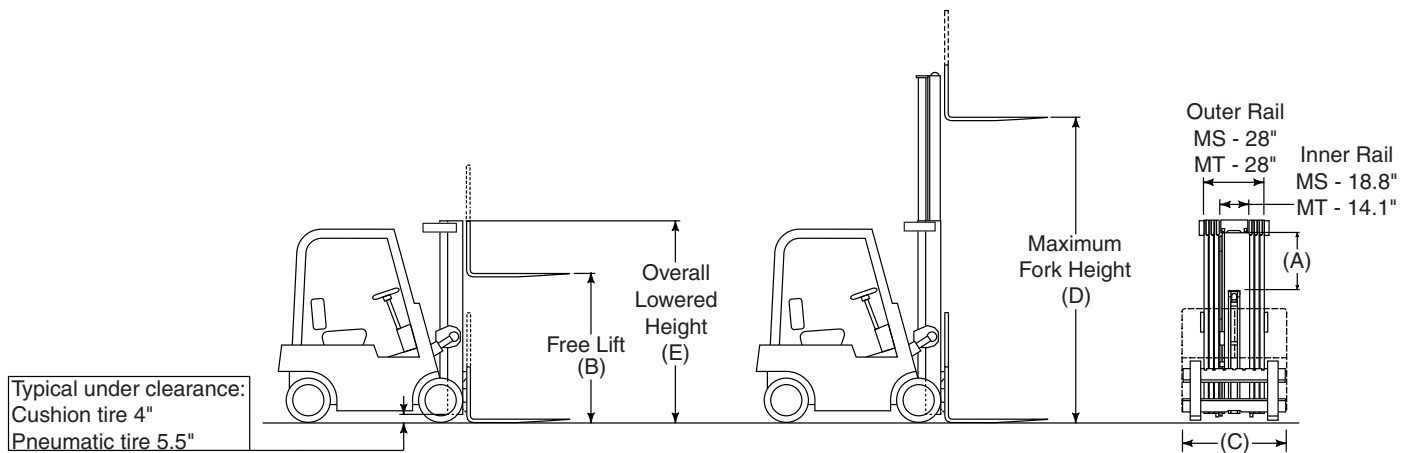
## Other Important Information!

- **Pressures and Flows:** The E65 mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 22 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
E65 MS	2250	2750	1	16
E65 MT	2350	2750	1	16

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	8000	Cushion	107.0"	79.0"	N/A	80D-MS-C0790	7.0"	2.3	1995
		Pneumatic	107.0"	80.5"	N/A	80D-MS-P0805			
	8000	Cushion	119.0"	85.0"	N/A	80D-MS-C0850	7.0"	2.5	2080
		Pneumatic	119.0"	86.5"	N/A	80D-MS-P0865			
	8000	Cushion	131.0"	91.0"	N/A	80D-MS-C0910	7.0"	2.8	2160
		Pneumatic	131.0"	92.5"	N/A	80D-MS-P0925			
	8000	Cushion	147.0"	99.0"	N/A	80D-MS-C0990	7.0"	3.1	2270
		Pneumatic	147.0"	100.5"	N/A	80D-MS-P1005			
	8000	Cushion	158.0"	105.0"	N/A	80D-MS-C1050	7.0"	3.4	2350
		Pneumatic	158.0"	106.5"	N/A	80D-MS-P1065			
	8000	Cushion	178.0"	115.0"	N/A	80D-MS-C1150	7.0"	3.8	2490
		Pneumatic	178.0"	116.5"	N/A	80D-MS-P1165			
Triple Three Stage MT	8000	Cushion	159.0"	78.0"	24.1"	80D-MT-C0780	49.3"	3.5	2640
		Pneumatic	159.0"	79.5"	24.1"	80D-MT-P0795			
	8000	Cushion	171.0"	82.0"	26.1"	80D-MT-C0820	53.3"	3.8	2720
		Pneumatic	171.0"	83.5"	26.1"	80D-MT-P0835			
	7950	Cushion	185.0"	87.0"	28.6"	80D-MT-C0870	58.3"	4.1	2820
		Pneumatic	185.0"	88.5"	28.6"	80D-MT-P0885			
	7720	Cushion	217.0"	98.0"	34.1"	80D-MT-C0980	69.3"	4.8	3035
		Pneumatic	217.0"	99.5"	34.1"	80D-MT-P0995			
	7570	Cushion	237.0"	105.0"	37.6"	80D-MT-C1050	76.3"	5.3	3170
		Pneumatic	237.0"	106.5"	37.6"	80D-MT-P1065			
	7450	Cushion	256.0"	112.0"	11.9"	80D-MT-C1120	83.3"	5.7	3310
		Pneumatic	256.0"	113.5"	11.9"	80D-MT-P1135			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79" to 281".
- Specifications noted within this page reflect the use of a 47" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages \*

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	III III	* <b>Contact Lift-Tek for product availability</b>	
63"	Cushion Pneumatic	III III	* <b>Contact Lift-Tek for product availability</b>	

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	III III	80D-MC-11A 80D-MC-12A	490
63"	Cushion Pneumatic	III III	80D-MC-13A 80D-MC-14A	610
68"	Cushion Pneumatic	III III	80D-MC-15A 80D-MC-16A	648

## Load Backrests

Width	Height	Ref #	Weight (lb.)
47"	48"	220636	99
63"	48"	230780	121
68"	48"	226826	129

- **Backrests** are also available in 36" and 60" heights.
- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

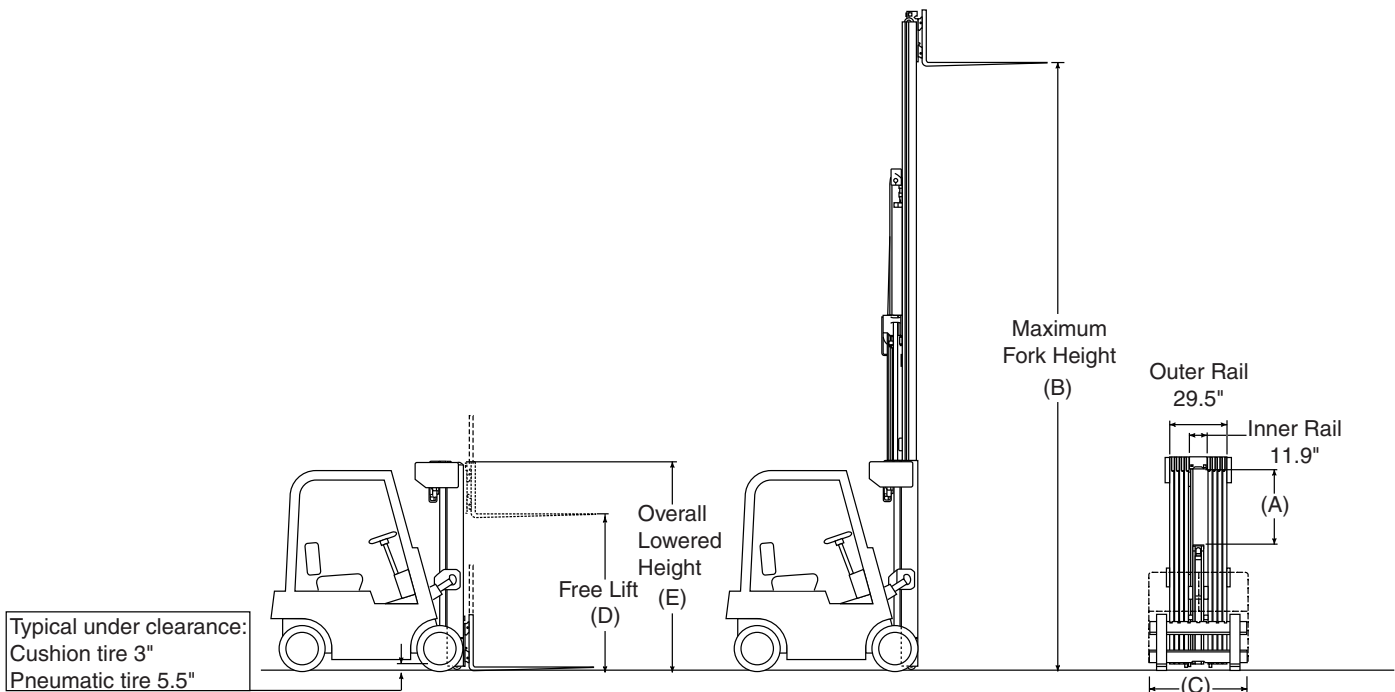
- **Pressures and Flows:** The 80D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 30 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
80D MS	2000	2750	1	23
80D MT	2050	2750	1	23

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

# 80H Quad Mast



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Quad Four Stage MQ	8000	Cushion	230.0"	83.5"	24.1	80H-MQ-C0835	51.5"	3.9	3540
		Pneumatic	230.0"	86.0"	24.1	80H-MQ-P0860			
	8000	Cushion	240.0"	86.0"	25.4"	80H-MQ-C0860	54.0"	4.1	3615
		Pneumatic	240.0"	88.5"	25.4"	80H-MQ-P0885			
	8000	Cushion	252.0"	89.0"	26.9"	80H-MQ-C0890	57.0"	4.3	3700
		Pneumatic	252.0"	91.5"	26.9"	80H-MQ-P0915			
	8000	Cushion	258.0"	91.0"	27.9"	80H-MQ-C0910	59.0"	4.5	3750
		Pneumatic	258.0"	93.5"	27.9"	80H-MQ-P0935			
	8000	Cushion	263.0	93"	28.9"	80H-MQ-C093	61"	4.7	3805
		Pneumatic	263.0"	95.5"	28.9"	80H-MQ-0955			
	7700	Cushion	273.0"	96.0"	30.4"	80H-MQ-C0960	64.0"	4.7	3885
		Pneumatic	273.0"	98.5"	30.4"	80H-MQ-P0985			
	7500	Cushion	285.0	100"	32.4"	80H-MQ-C100	68.0"	5.1	3995
		Pneumatic	285.0"	102.5"	32.4"	80H-MQ-P1025			
	7200	Cushion	294.0"	103.0"	33.9"	80H-MQ-C1030	71.0"	5.1	4070
		Pneumatic	294.0"	105.5"	33.9"	80H-MQ-P1055			
	7200	Cushion	315.0"	110.0"	37.4"	80H-MQ-C1100	78.0"	5.4	4255
		Pneumatic	315.0"	112.5"	37.4"	80H-MQ-P1125			
	5000	Cushion	336.0"	117.0"	40.9"	80H-MQ-C1170	85.0"	5.8	4440
		Pneumatic	336.0"	119.5"	40.9"	80H-MQ-P1195			

- Specify carriage or sideshifter and load backrest separately.
- Contact Lift Technologies for other lowered height and fork lift height combinations.
- Specifications noted within this page reflect the use of a 42" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

Phone: 864-647-1119

www.lift-tek.com

Fax: 864-647-5406



## Carriages

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
42"	Cushion	III	80H-MC-01A	486
	Pneumatic	III	80H-MC-02A	
48"	Cushion	III	80H-MC-03A	524
	Pneumatic	III	80H-MC-04A	
55"	Cushion	III	80H-MC-05A	567
	Pneumatic	III	80H-MC-06A	
61"	Cushion	III	80H-MC-07A	605
	Pneumatic	III	80H-MC-08A	

### Carpet Pole Carriages

Pole Dia.	Truck Type	Class	Ref #	Weight (lb.)
3.0"	Cushion	N/A	80H-MQ-20A	300
	Pneumatic	N/A	80H-MQ-21A	
3.25"	Cushion	N/A	80H-MQ-22A	302
	Pneumatic	N/A	80H-MQ-23A	
3.5"	Cushion	N/A	80H-MQ-24A	320
	Pneumatic	N/A	80H-MQ-25A	

► Carpet pole carriages are 6 roller design.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
42"	48"	290300	83
48"	48"	230824	99
55"	48"	290302	112
61"	48"	290303	113

► **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MQ masts.  
For IHR on units shorter than C083/P085 or taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on " **Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MQ masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MQ masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

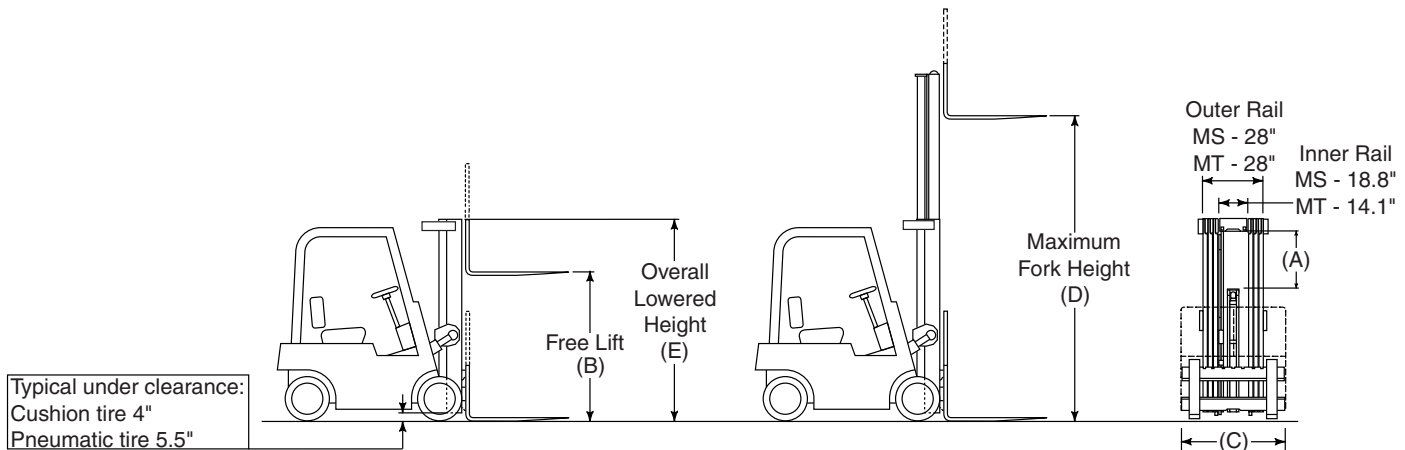
- **Pressures and Flows:** The 80H mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 24 gpm, (27.5 gpm for low pressure) but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
80H MQ	2850	3000	1	19
80H(LP) MQ	2500	2750	1	25

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

LP = Low Pressure



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
Standard Two Stage MS	10000	Cushion	99.0"	79.0"	N/A	100D-MS-C0790	7.0"	2.5	2030
		Pneumatic	99.0"	80.5"	N/A	100D-MS-P0815			
	10000	Cushion	111.0"	85.0"	N/A	100D-MS-C0850	7.0"	2.8	2115
		Pneumatic	111.0"	86.5"	N/A	100D-MS-P0865			
	10000	Cushion	123.0"	91.0"	N/A	100D-MS-C0910	7.0"	3.1	2200
		Pneumatic	123.0"	92.5"	N/A	100D-MS-P0925			
	10000	Cushion	138.0"	99.0"	N/A	100D-MS-C0990	7.0"	3.5	2310
		Pneumatic	138.0"	100.5"	N/A	100D-MS-P1005			
	10000	Cushion	150.0"	105.0"	N/A	100D-MS-C1050	7.0"	3.8	2390
		Pneumatic	150.0"	106.5"	N/A	100D-MS-P1065			
	10000	Cushion	169.0"	115.0"	N/A	100D-MS-C1150	7.0"	4.3	2520
		Pneumatic	169.0"	116.5"	N/A	100D-MS-P1165			
Triple Three Stage MT	10000	Cushion	158.0"	82.0"	28.3"	100D-MT-C0820	49.3"	4.2	2725
		Pneumatic	158.0"	83.5"	28.3"	100D-MT-P0835			
	9900	Cushion	176.0"	88.0"	31.3"	100D-MT-C0880	55.3"	4.7	2845
		Pneumatic	176.0"	89.5"	31.3"	100D-MT-P0895			
	9660	Cushion	206.0"	98.0"	36.3"	100D-MT-C0980	65.3"	5.5	3040
		Pneumatic	206.0"	99.5"	36.3"	100D-MT-P0995			
	9490	Cushion	227.0"	105.0"	39.8"	100D-MT-C1050	72.3"	6.1	3180
		Pneumatic	227.0"	106.5"	39.8"	100D-MT-P1065			
	9220	Cushion	257.0"	115.0"	22.9"	100D-MT-C1150	82.3"	6.9	3375
		Pneumatic	257.0"	116.5"	22.9"	100D-MT-P1165			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 71" to 275".
- Specifications noted within this page reflect the use of a 47" wide 6 roller class III carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages \*

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	III III	* <b>Contact Lift-Tek for product availability</b>	
63"	Cushion Pneumatic	III III	* <b>Contact Lift-Tek for product availability</b>	

- ▶ **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- ▶ **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	III III	100D-MC-11A 100D-MC-12A	497
63"	Cushion Pneumatic	III III	100D-MC-13A 100D-MC-14A	617
68"	Cushion Pneumatic	III III	100D-MC-15A 100D-MC-16A	654
72"	Cushion Pneumatic	III III	100D-MC-17A 100D-MC-18A	691

- ▶ **8 roller carriages** also available. Contact Lift Technologies for complete specifications .

## Load Backrests

Width	Height	Ref #	Weight (lb.)
47"	48"	220636	99
63"	48"	230780	121
68"	48"	226826	129
72"	48"	230827	136

- ▶ **Backrests** are also available in 36" and 60" heights.

- ▶ **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- ▶ Single and dual function internal hose reeving is available for MS and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- ▶ Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- ▶ Please refer to the Important Instructions on page 58 of this publication with information on " **Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- ▶ The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.
- ▶ **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

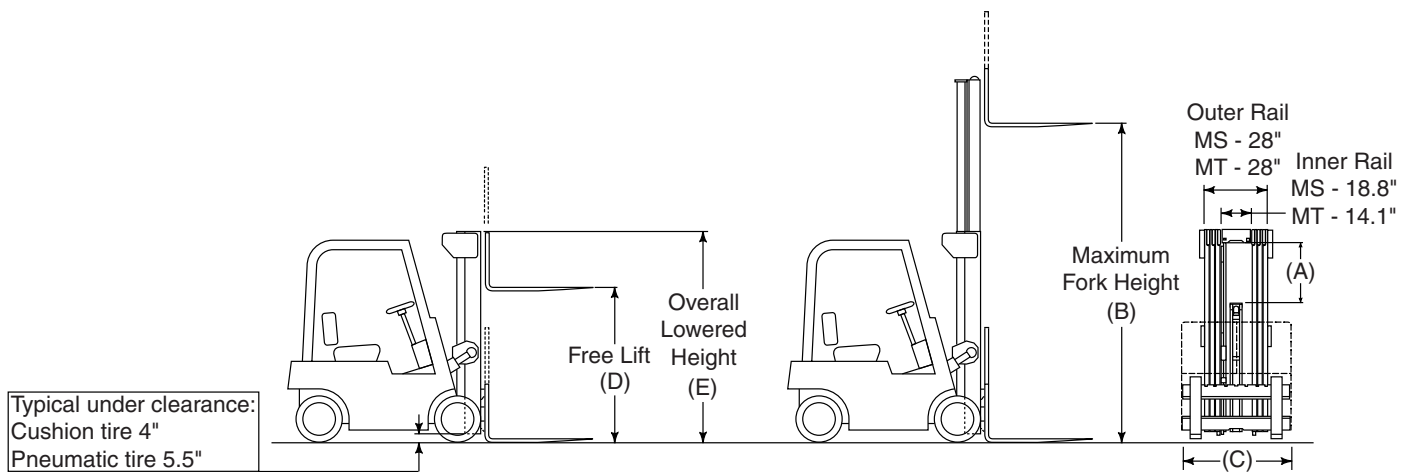
## Other Important Information!

- ▶ **Pressures and Flows:** The 100D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 38 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
100D MS	2050	2750	1	29
100D MT	2150	2750	1	29

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)



	Capacity (lb. @ 24" Load Center)	Truck Type	Maximum Fork Height (B)	Overall Lowered Height (E)	Visibility Window (A)	Order Ref No.	Free Lift (D)	Fluid to Extend (gals)	Weight (lb.)
<b>Standard Two Stage MS</b>	11000	Cushion	105.0"	84.0"	N/A	110D-MS-C0840	7.0"	2.7	2170
		Pneumatic	105.0"	85.5"	N/A	110D-MS-P0855			
	11000	Cushion	117.0"	90.0"	N/A	110D-MS-C0900	7.0"	3.0	2250
		Pneumatic	117.0"	91.5"	N/A	110D-MS-P0915			
	11000	Cushion	140.0"	102.0"	N/A	110D-MS-C1020	7.0"	3.6	2415
		Pneumatic	140.0"	103.5"	N/A	110D-MS-P1035			
<b>Triple Three Stage MT</b>	11000	Cushion	163.0"	114.0"	N/A	110D-MS-C1140	7.0"	4.2	2580
		Pneumatic	163.0"	115.5"	N/A	110D-MS-P1155			
	11000	Cushion	154.0"	83.0"	28.8"	110D-MT-C0830	48.3"	4.1	2770
		Pneumatic	154.0"	84.5"	28.8"	110D-MT-P0845			
	10810	Cushion	173.0"	89.0"	31.8"	110D-MT-C0890	54.3"	4.6	2890
		Pneumatic	173.0"	90.5"	31.8"	110D-MT-P0905			
	10580	Cushion	191.0"	95.0"	34.8"	110D-MT-C0950	60.3"	5.1	3010
		Pneumatic	191.0"	96.5"	34.8"	110D-MT-P0965			
	10360	Cushion	209.0"	101.0"	37.8"	110D-MT-C1010	66.3"	5.6	3125
		Pneumatic	209.0"	102.5"	37.8"	110D-MT-P1025			
	10130	Cushion	227.0"	107.0"	40.8"	110D-MT-C1070	72.3"	6.1	3245
		Pneumatic	227.0"	108.5"	40.8"	110D-MT-P1085			
	9680	Cushion	263.0"	119.0"	24.9"	110D-MT-C1190	84.3"	7.0	3480
		Pneumatic	263.0"	120.5"	24.9"	110D-MT-P1205			

- Specify carriage or sideshifter and load backrest separately.
- Masts are available in 1" down height increments with maximum fork heights from 79" to 250".
- Specifications noted within this page reflect the use of a 68" wide 6 roller class IV carriage and 48" high load backrest. Free lift specification does not include a load backrest.

## Integral Sideshift Carriages \*

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	IV IV	* <b>Contact Lift-Tek for product availability</b>	
68"	Cushion Pneumatic	IV IV	* <b>Contact Lift-Tek for product availability</b>	

- **Integral sideshifters** are 6 roller designs. When supplied in a mast they are installed complete with a hose kit, tested and ready for use.
- **Integral sideshifters improve mast capacity in comparison to hang-on sideshifters. Contact your OEM for rating information.**

## Carriages

### 6 Roller Carriages

Width "C"	Truck Type	ITA Class	Ref #	Weight (lb.)
47"	Cushion Pneumatic	IV IV	110D-MC-01A 110D-MC-02A	635
68"	Cushion Pneumatic	IV IV	110D-MC-03A 110D-MC-04A	865

- **8 roller carriages** also available. Contact Lift Technologies for complete specifications and alternative widths.

## Load Backrests

Width	Height	Ref #	Weight (lb.)
47"	48"	248786	99
68"	48"	249816	129

- **OSHA or state regulations may require the installation of load backrests.** Lift Technologies recommends that all masts be supplied with factory installed load backrests.

## Hydraulic Options

### Internal Hose Reeving

- Single and dual function internal hose reeving is available for MS and MT masts.  
For IHR on units shorter than C083/P085 and taller than C104/P106, consult LTI engineering.
- Contact Lift Technologies for further information on specifications and visibility.

### Cold Storage, Push Back Racking and Heavy Attachment Use

- Please refer to the Important Instructions on page 58 of this publication with information on "**Slack Chain Valves, Cold Storage and Hydraulic Oil Flow Rates**" to determine what mast options are required.

### Attachment Adaption and QD Couplers

- The **Attachment Adaption Kit** provides all the required fittings, hoses and brackets for the connection between the reeving bulkhead and the upper carriage bar and are available for MS and MT masts.
- **Quick Disconnect Couplers** simplify your attachment installation and save time and money. They are available for MS and MT masts. Contact Lift Technologies for complete specifications.

## Other Important Information!

- **Pressures and Flows:** The 110D mast model has a minimum hydraulic system pressure to lift the rated load as well as a maximum allowable system pressure. A minimum and recommended flow rate is also noted below. Some applications have successfully used flow rates of 38 gpm, but the mast purchaser must confirm proper mast operation in the expected operating conditions if using a flow rate above the recommended value because truck and environmental variables can affect mast function. Please contact LTI with questions concerning performance in regards to your specific application. **See page 58 of this publication for more information on the variables that affect the operation of the mast.**

	Min Pressure*	Max Pressure*	Minimum Flow**	Recommended Flow**
110D MS	2300	2750	1	29
110D MT	2350	2750	1	29

\* Pressure in pounds per square inch (psi)

\*\* Flow rate in gallons per minute (gpm)

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# Important Instructions

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## Appendix - Important Instructions

### Slack Chain Valves (SCV)

#### Why a Slack Chain Valve?

If the operator tries to lower the mast while the forks are "hung up" in a rack, the mast will not lower but the hydraulic fluid will drain from the lift cylinders. When the forks are free of the rack, the mast will drop faster and farther than chains and hoses can accommodate. This can cause chain and / or hose damage. The SCV prevents hydraulic fluid from draining from the cylinder when the operator tries to lower the mast while the forks are "hung up". This is more likely to occur at higher discharge heights and in cold temperature operations, as well as where push back racking and heavy attachments are used – all instances of restricted visibility.

#### When are Slack Chain Valves required?

- For use in cold storage and freezer temperatures below +20F
  - SCV's are available for factory or field installation.

### Operating Environments – Temperature

- Standard operating environment is +20F to +120F
- Cold storage environment is below +20F to –20F
- \* Extreme Freezer environment is –20F to –40F

### Cold Storage and Extreme Freezer Applications

- Cold Storage Kit is required below +20F (except 35-45-55DV quads)
- Slack Chain Valve is required in temperatures below +20F.
- \* When operating in - 20F to - 40F:  
Maximum 5 minute duration in temperature below -20F. Truck must be in ambient temperature above -20F for at least 10 minutes before re-entering temperature -20F and below.

#### Critical Maintenance Note:

For below freezing operations, proper mast maintenance per the Lift Technologies maintenance and operator manual is required, including lubrication between hose sheaves and their shafts to reduce condensation and freezing. Proper hose tension and alignment to ensure hoses track properly is crucial for the correct operation of the internal hose reeving system. Failure to comply with these maintenance instructions may result in premature hose failure and will limit warranty coverage.

### Hydraulic Oil Flow Rates

All masts have recommended minimum and maximum hydraulic operating pressures and flow rates to optimize mast performance. Many mast variables including hoses, fittings, and valves are customer and truck specific. There may be other variables on the truck which affect proper mast operation at a specific flow rate. Please ensure that all hydraulic system requirements are reviewed in detail to ensure optimal mast functionality.



# Integral Fork Positioner

## Integral Fork Positioner Capacities

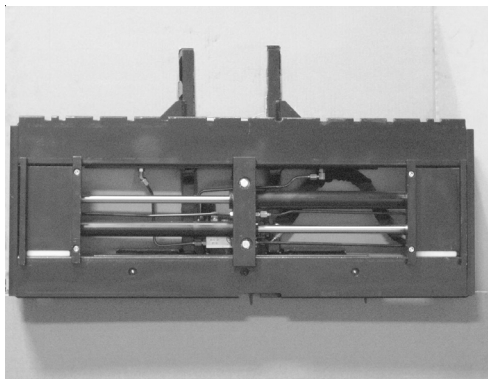
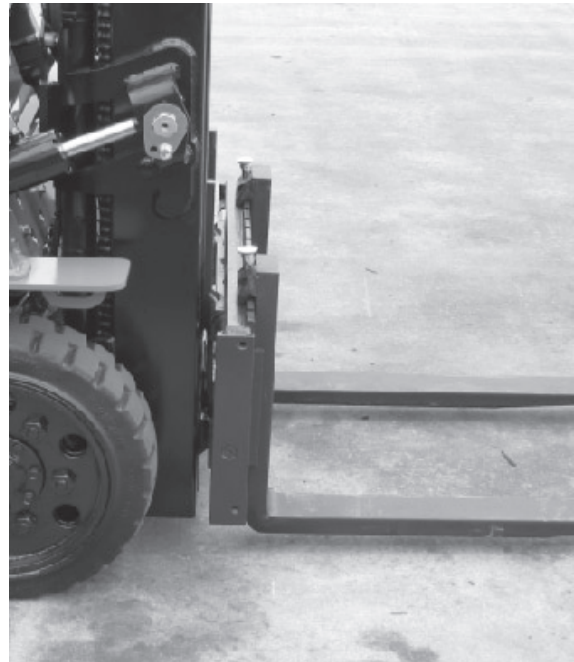
Capacity & Load Center	Mounting Class	Overall Width	Maximum Fork Spread	Minimum Fork Opening	Fork Width
3500 lb. @ 24"	II	37"	34.5"	4.1"	4"
4500 lb. @ 24"		38.5"	36"	4.1"	4"
5500 lb. @ 24"		41"	38.5"	4.1"	4"
5500 - 6500 lb.	III	37"	34.5"	2.6"	4"
		41"	38.5"	2.6"	4"

## Integral Fork Positioner Application and Utilization

**Integral Fork Positioners** can be added to the Lift Tek Integral Sideshifter to provide a complete all in one material handling solution.

### Lift Technologies Fork Positioners

- ▶ Maintain truck capacity rating, no increase in lost load.
- ▶ Minimal increase in weight.
- ▶ Available in capacities from 3,000 lb. to 6,500 lb.
- ▶ ITA hook fork mount class 2 and 3 allows use of standard hook forks.
- ▶ Can easily be added to Lift Tek integral sideshifters in the field.



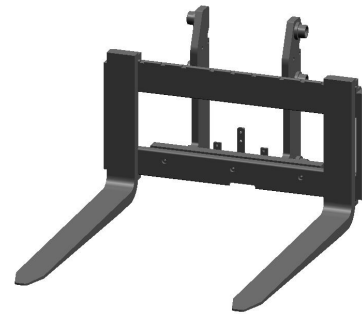
### Integral Fork Positioner Operator Benefits

- ▶ Improves productivity as the operator can adjust fork spacing from the drivers seat.
- ▶ Reduces operator injuries and fatigue.
- ▶ Decreases down time.
- ▶ Reduces product damage by hydraulically positioning the forks to suit the load size and shape.

# Integral Sideshifters and Carriages

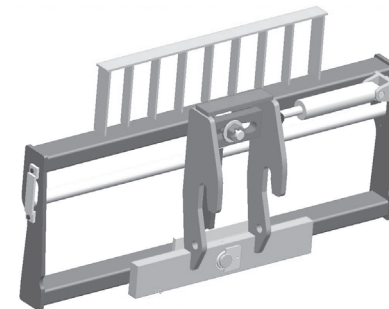
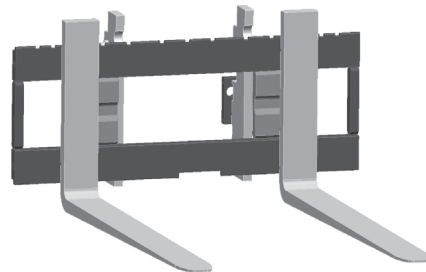
## Integral Sideshift Carriages

- ▶ Available in capacities from 1.5 – 3.5 ton.
- ▶ Rugged tested structure and long life components.
- ▶ Easy to service.
- ▶ Efficient design allowing improved operator visibility.
- ▶ Increased truck capacity rating with reduction in weight and load center compared to hang-on sideshifter.
- ▶ Coming soon 4.0 – 7.0 ton Integral Sideshifter.



## Standard Carriages

- ▶ Industrial truck, rough terrain forklift and telehandler carriage types.
- ▶ Available in capacities from 1.5 – 7.0 ton.
- ▶ High visibility designs available.
- ▶ Rugged attachment friendly carriages made with vanadium carriage bar material for long life and performance.
- ▶ Lift-Tek or OEM specific designs.



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# Service Parts

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## Quality OEM Lift-Tek Parts

The availability and timely shipment of quality OEM Lift-Tek service parts is our commitment to customer satisfaction. Most parts are available for same day shipment. To expedite the order process please have the Lift-Tek part number and/or mast PID (serial number) available when you call. Our professional parts specialists are available to quickly assist you in the identification of all your service parts needs.

## Parts Depot Contact Information:

8:00am to 5:00pm EST, Monday through Friday.

Toll Free: (877) 430-6302

Local: (864) 647-6302

24-hr Fax: (864) 647-7302

Email: [parts@lift-tek.com](mailto:parts@lift-tek.com)

## Product Summary:

- ▶ **Mast Rollers** - OEM quality approved with safety in mind.
- ▶ **Chain** - Pre-cut lengths are in stock or custom lengths are cut to order. SAME DAY shipment available for most sizes!
- ▶ **Cylinders and Service Kits** - Most cylinders and over 100 different packing kits are in stock for immediate delivery.
- ▶ **Hoses** - Pre-cut lengths in stock or custom cut to length with hose fittings installed in-house.
- ▶ **Internal Hose Reeving Kits** - Guides, sheaves, brackets and more!
- ▶ **Carriage Bars** – Available cut to length, notched, shot blasted and ready for welding.
- ▶ **Replacement Carriages and Service Kits** - Don't wait for the carriage to break due to poor maintenance - order a service kit today!
- ▶ **Load Backrests** - Most common sizes in stock and ready for SAME DAY shipment.
- ▶ **Fork Positioner Kits** - Fork positioning to your Lift-Tek Integral Sideshifter - call for details!

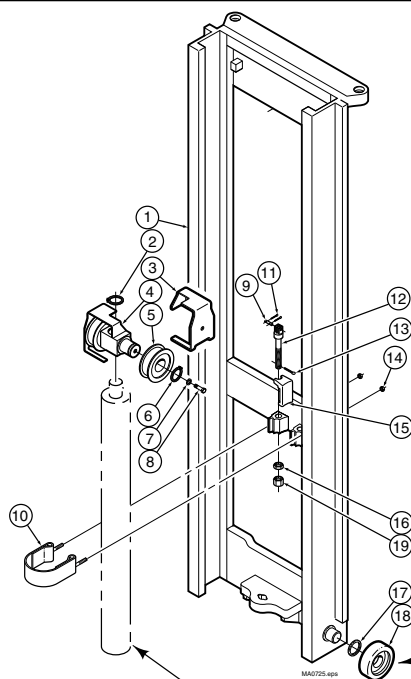
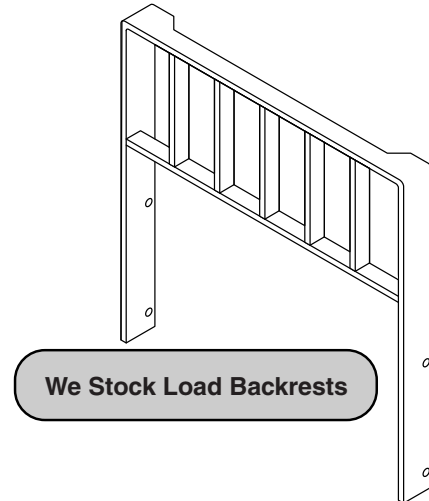
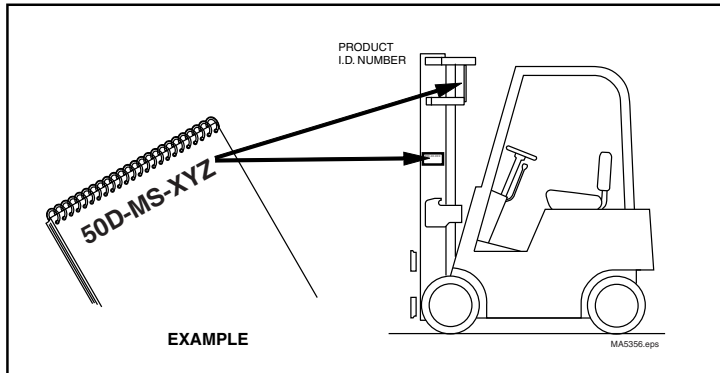
**Many more parts are in stock. Please contact the Parts Depot for more information.**

# Important Information For Parts Orders

## How to Identify a Lift-Tek Mast

Locate the product ID (PID) number stamped on the upper left hand side of the outer upright channel. This number must be used when ordering replacement parts for this product.

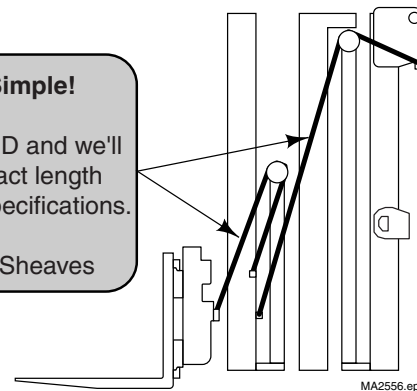
Our professional parts specialists are available to quickly assist you in the identification of all your parts needs. Or, you may visit the Technical Publications page of our website to obtain information specific to your mast and PID at [www.lift-tekelecar.com](http://www.lift-tekelecar.com).



### Chain Ordering Made Simple!

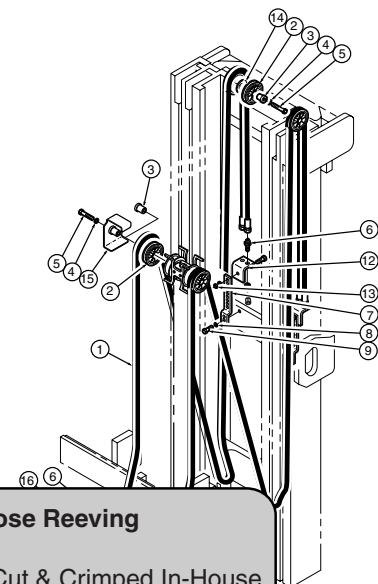
Provide us with the Mast PID and we'll provide you chain cut to exact length using the original design specifications.

Chain - Anchors - Pins - Sheaves



Mast & Carriage Rollers  
OEM Lift-Tek Approved

Cylinders and Seal Kits



## CONTACT THE LIFT-TEK PARTS DEPOT



**Parts Depot Phone**  
Toll Free (877) 430-6302  
Local (864) 647-7302

### Internal Hose Reeving

Replacement Hose - Cut & Crimped In-House  
Ask Us About Custom Kits to Add a Function

Phone: 877-430-6302

Fax: 864-647-7302

Do you have any questions that need to be answered right now?

## **Lift Technologies, Inc.**

**7040 South Highway 11**

**Westminster, SC 29693**

**USA**

**Tel: (864) 647-1119**

**Fax: (864) 647-5406**

**Toll Free: (888) 946-3330 - North America Only**

**Website: [www.lift-tek.com](http://www.lift-tek.com)**

## **Parts and Service**

**Toll Free: (877) 430-6302**

**Direct: (864) 647-6302**

**Fax: (864) 647-7302**

**Email: [parts@lift-tek.com](mailto:parts@lift-tek.com)**

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### **Other Lift Technologies Locations**

## **Lift -Tek Elecar S.p.A**

**29015 Castel. S. Giovanni (PC)**

**Via G. Galilei**

**Italy**



**LIFT-TEK®**

[www.lift-tek.com](http://www.lift-tek.com)

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