

## R 70 Technical Data.

Diesel Forklift Trucks.

R 70-35

R 70-40

R 70-45

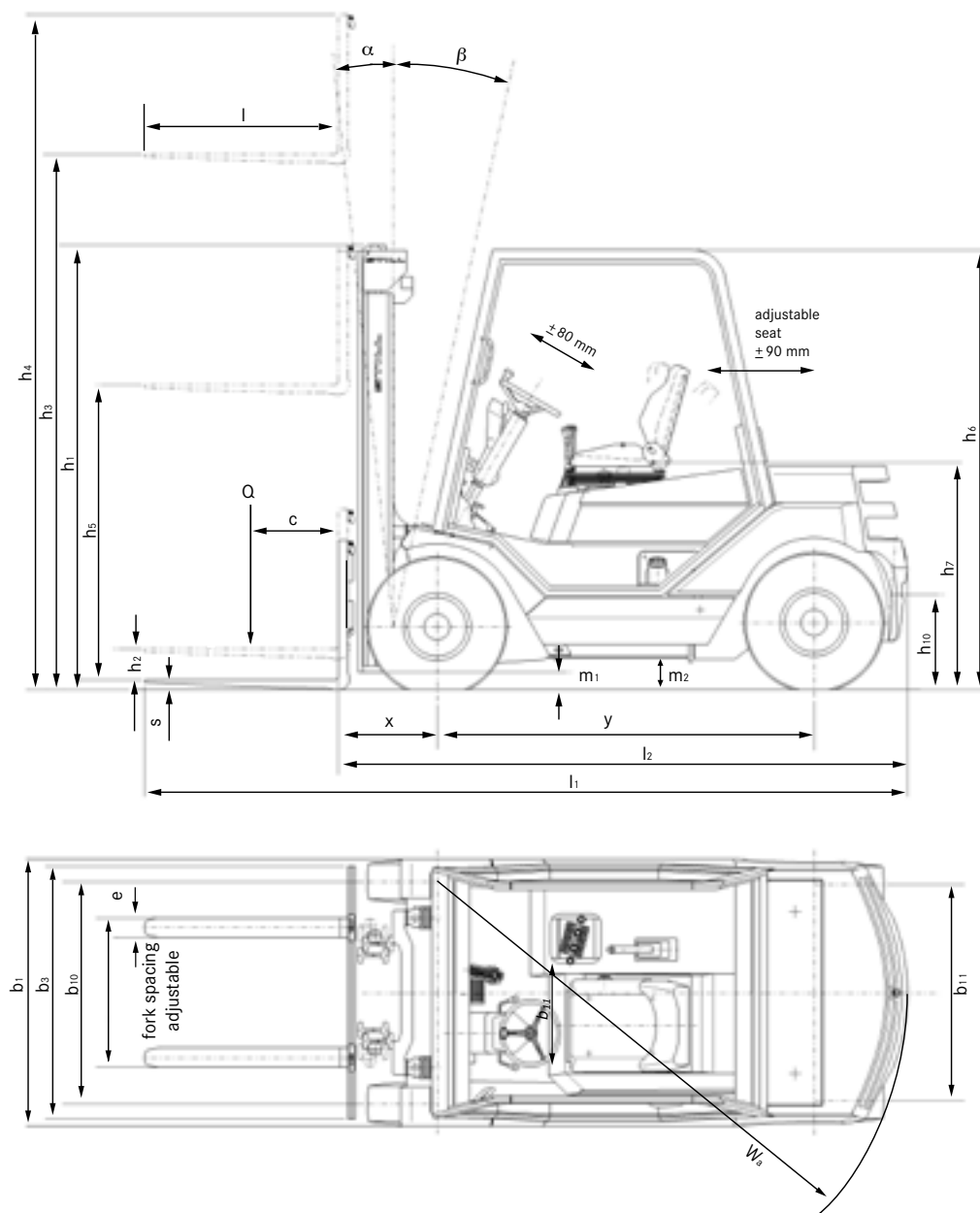


# R 70 Technical Data.

In accordance with VDI guidelines 2198, this specification applies to the standard model only.  
Alternative tyres, mast types, ancillary equipment, etc. could result in different values.

			STILL	STILL	STILL	
Characteristics	1.1	Manufacturer				
	1.2	Manufacturer's model designation	R 70-35	R 70-40	R 70-45	
	1.3	Power supply – electric, diesel, petrol, gas, mains electric	diesel	diesel	diesel	
	1.4	Type of control – hand, pedestrian, stand-on, rider seated	rider seated	rider seated	rider seated	
	1.5	Carrying capacity / load	Q kg	3500	4000	4500
	1.6	Load centre	c mm	500	500	500
	1.8	Load distance	x mm	510	510	510
	1.9	Wheelbase	y mm	1950	1950	1950
	Weight	2.1	Weight	kg	5450	5850
2.2		Axle loadings laden front	kg	7869	8672	9530
2.2.1		Axle loadings laden rear	kg	1087	1178	1220
2.3		Axle loadings unladen front	kg	2550	2600	2700
2.3.1		Axle loadings unladen rear	kg	1607	2004	2447
Wheels / tyres	3.1	Tyres – rubber (V), superelastic (SE), pneumatic (L), polyurethane (PE)	L / SE	L / SE	L / SE	
	3.2	Tyre size – front	250-15 / 18 PR	250-15 / 18 PR	250-15 / 18 PR	
	3.3	Tyre size – rear	250-15 / 18 PR	250-15 / 18 PR	250-15 / 18 PR	
	3.5	Wheels – number front (x = drive wheel)	2x (4x)	2x (4x)	2x (4x)	
	3.5.1	Wheels – number rear (x = drive wheel)	2	2	2	
	3.6	Track width – front	b <sub>10</sub> mm	1150 (1336)	1150 (1336)	1150 (1336)
	3.7	Track width – rear	b <sub>11</sub> mm	1120	1120	1120
Dimensions	4.1	Tilt angle, mast / fork carriage forwards	degrees	6	6	6
	4.1.1	Tilt angle, mast / fork carriage backwards	degrees	8	8	8
	4.2	Closed height	h <sub>1</sub> mm	2400	2400	2400
	4.3	Free lift	h <sub>2</sub> mm	160	160	160
	4.4	Lift height	h <sub>3</sub> mm	3320	3320	3220
	4.5	Height, mast raised	h <sub>4</sub> mm	4130	4130	4183
	4.7	Height to top of overhead guard (cabin)	h <sub>6</sub> mm	2300	2300	2300
	4.8	Seat height	h <sub>7</sub> mm	1176	1176	1176
	4.12	Coupling height	h <sub>10</sub> mm	493	493	493
	4.19	Overall length	l <sub>1</sub> mm	3942	3942	4000
	4.20	Length to front face of forks	l <sub>2</sub> mm	2942	2942	3000
	4.21	Overall width	b <sub>1</sub> mm	1380 (1769)	1380 (1769)	1380 (1769)
	4.22	Fork thickness	s mm	50	50	50
	4.22.1	Fork width	e mm	100	120	120
	4.22.2	Fork length	l mm	1000	1000	1000
	4.23	Fork carriage to DIN 15173 – class / form A or B		ISO III B	ISO III B	ISO III B
	4.24	Fork carriage width	b <sub>3</sub> mm	1310	1310	1310
	4.31	Ground clearance beneath mast, laden	m <sub>1</sub> mm	120	120	120
	4.32	Ground clearance at centre of wheelbase	m <sub>2</sub> mm	165	165	165
	4.33	Aisle width for pallets 1000 x 1200 wide	A <sub>st</sub> mm	4340	4340	4387
4.34	Aisle width for pallets 800 x 1200 long	A <sub>st</sub> mm	4540	4540	4587	
4.35	Outer turning radius	W <sub>a</sub> mm	2630	2630	2677	
4.36	Inner turning radius	b <sub>13</sub> mm				
Performance	5.1	Speed laden	km/h	23	23	23
	5.1.1	Speed unladen	km/h	23	23	23
	5.2	Lift speed laden	m/s	0.48	0.48	0.4
	5.2.1	Lift speed unladen	m/s	0.5	0.5	0.44
	5.3	Lowering speed unladen	m/s	0.56	0.56	0.56
	5.3.1	Lowering speed laden	m/s	0.52	0.52	0.52
	5.5	Rated drawbar pull laden	N	22600	22600	22600
	5.5.1	Rated drawbar pull unladen	N	14900	14900	14900
	5.7	Gradeability laden	%	27	25	22
	5.7.1	Gradeability unladen	%	29	28	26
5.9	Acceleration time laden	s	5.4	5.5	5.7	
5.9.1	Acceleration time unladen	s	4.4	4.5	4.7	
5.10	Brakes		electr. / hydr.	electr. / hydr.	electr. / hydr.	
Engine	7.1	Engine manufacturer		KHD	KHD	KHD
	7.1.1	Type		BF 4 M 1012 E	BF 4 M 1012 E	BF 4 M 1012 E
	7.2	Engine rated power to ISO 1585	kW	53	53	53
	7.3	Rated rpm	1/min	2200	2200	2200
	7.4	No. of cylinders		4	4	4
	7.4.1	Displacement	cm <sup>3</sup>	3190	3190	3190
7.5	Fuel consumption	l/h	3.9	3.9	3.9	
Other	8.1	Drive control		Dieseltronic	Dieseltronic	Dieseltronic
	8.2	Operating pressure for attachments	bar	230	230	230
	8.3	Oil flow for attachments	l/min			
	8.4	Average noise peak at operator's ears	dB (A)	76	76	76
	8.5	Trailer coupling, type / DIN		pin	pin	pin

The models depicted in this brochure may contain special parts or attachments which are not supplied as standard.



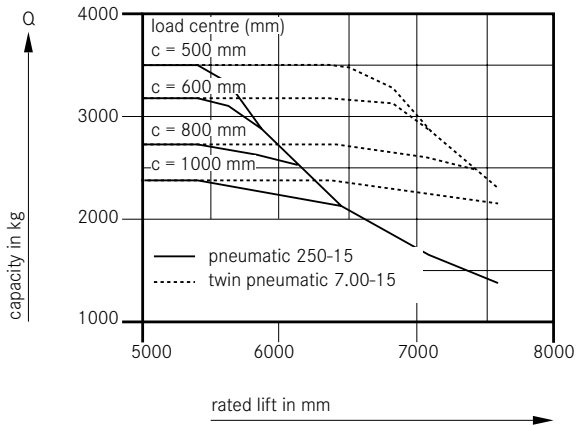
Mast types in use with pneumatic or superelastic tyres.

			Telescopic			Full free lift (HiLo)			Triple	
Width (single front wheel)	b <sub>1</sub>	mm	1380			1380			1380	
Width (twin front wheels)	b <sub>1</sub>	mm	1769			1769			1769	
Load distance	x	mm	510			510			537	
Angle of tilt	α β	φ°	6	8*	6	8*	3	8*	6	8*
R 70-35 / 40	Rated lift	h <sub>3</sub>	mm	3220-3420	3520-4020	4120-5020	3170-3570	3670-4170	4270-4770	4530-7530
	Height, mast lowered	h <sub>1</sub>	mm	2350-2450	2500-2750	2800-3250	2250-2450	2500-2750	2800-3050	2550-3250
	Height, mast raised	h <sub>4</sub>	mm	4030-4230	4330-4830	4930-5830	3980-4380	4480-4980	5080-5580	5355-8355
	Free lift	h <sub>2</sub> /h <sub>5</sub>	mm	160			1470-1670	1720-1970	2020-2270	1470-2470
	Overall length	l <sub>2</sub>	mm	2942			2942			2969
Working aisle width Ast	A <sub>ast</sub>	mm	4340 / 4540			4340 / 4540			4367 / 4567	
Pallet 1000 x 1200 wide   800 x 1200 long										
R 70-45	Rated lift	h <sub>3</sub>	mm	3220-3420	3520-4020	4120-5020	3070-3470	3570-4070	4170-4470	4380-7380
	Height, mast lowered	h <sub>1</sub>	mm	2350-2450	2500-2750	2800-3250	2250-2450	2500-2750	2800-2950	2250-3250
	Height, mast raised	h <sub>4</sub>	mm	4083-4283	4383-4883	4983-5883	3880-4280	4380-4880	4980-5280	5205-8205
	Free lift	h <sub>2</sub> /h <sub>5</sub>	mm	160			1470-1670	1720-1970	2020-2170	1470-2470
	Overall length	l <sub>2</sub>	mm	3000			3000			3027
Working aisle width Ast	A <sub>ast</sub>	mm	4387 / 4587			4387 / 4587			4414 / 4614	
Pallet 1000 x 1200 wide   800 x 1200 long										

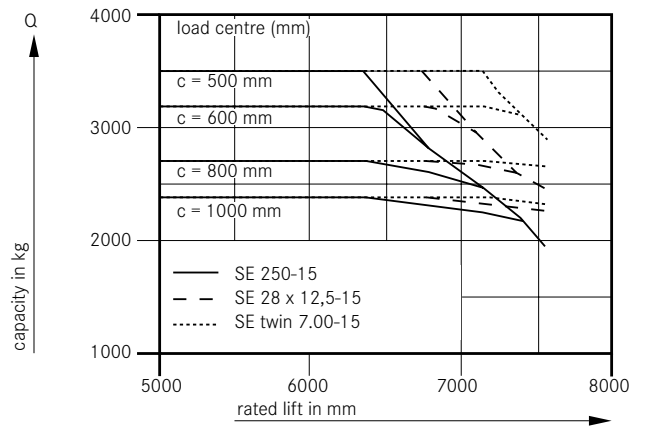
\* with front screen 6° max. backward tilt

\*\* with front screen up to 2550 mm closed height 7° max. backward tilt

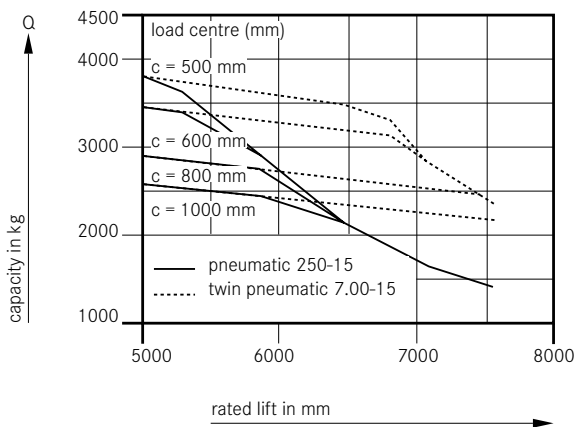
Capacity Chart R 70-35 Telescopic, HiLo, and Triple mast



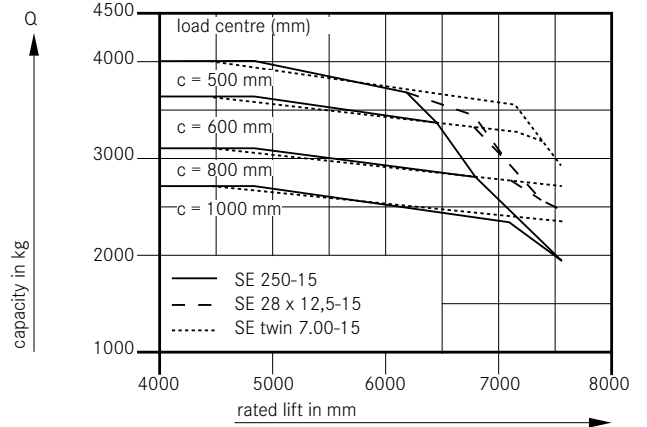
Capacity Chart R 70-35 Telescopic, HiLo, and Triple mast



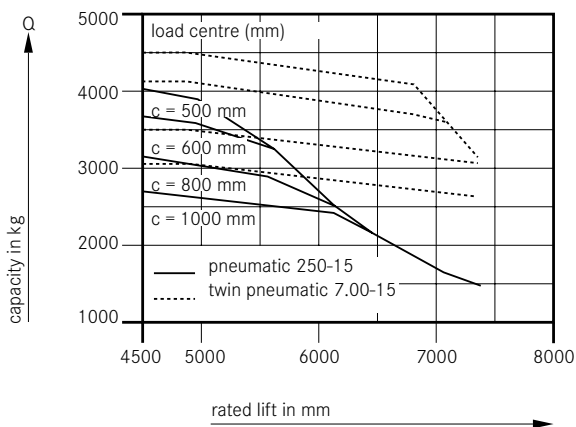
Capacity Chart R 70-40 Telescopic, HiLo, and Triple mast



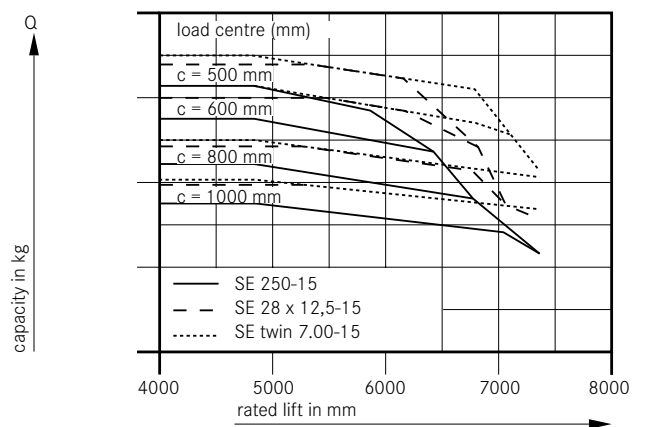
Capacity Chart R 70-40 Telescopic, HiLo, and Triple mast



Capacity Chart R 70-45 Telescopic, HiLo, and Triple mast



Capacity Chart R 70-45 Telescopic, HiLo, and Triple mast



# R 70 Technical Data.

## Drive.

The R 70 features STILL's ASM diesel-electric drive technology, comprising an encapsulated 3-phase asynchronous traction motor, which gives the following benefits:

- Low fuel consumption
- The truck holds the speed set by the foot pedal regardless of direction of travel and gradient. This makes for safe driving and simpler operation.
- Because travel and lift speeds are controlled independently, fast hoisting and slow driving (inching) can be performed simultaneously without special equipment or undue driver skill. This operation is wear-free, saves on operating costs and simplifies operation.
- Wear-free braking down to a standstill is achieved through the drive, which holds the truck in position when at rest. As long as the pedal is not depressed, the R 70 will remain stationary. Even on a slight gradient, holding it with the brake is not necessary. This simplicity of operation makes it easier - and safer - for the driver, who can concentrate on positioning the fork tips and the load.
- Driving characteristics are set by the driver by means of a dashboard mounted control. Five positions vary the response from fast to slow - fast acceleration and strong braking for maximum performance can be switched down through five settings to gentle acceleration and braking for handling delicate or sensitive goods. Thus the R 70 is readily adaptable to all working conditions - a benefit exclusive to STILL's unique drive and control system.
- Electric drive gives proven reliability, long component life and low maintenance costs.

## Engine.

Water cooled four cylinder DEUTZ engine features a specially designed low rotation fuel injection system to give high fuel economy returns with low exhaust emissions.

As an option, particle filters offering 96% efficiency can be fitted to prevent the emission of soot particles.

Internal or external regeneration is available, depending on the application.

## Mast.

STILL clear view masts in telescopic, HiLo and triplex designs are available to suit every application:

- Telescopic: cost-effective design, suitable for most applications.
- HiLo: for high stacking under low ceilings; uses space right up to the roof.
- Triplex: for applications with low doorways and greater stacking heights; uses space right up to the roof.

Nested I-beam mast sections with integral hoist cylinders and in-line rear mounted lift chains give the slimmest mast section and thus the best clear visibility. Hydraulic hoses for attachments are run in the dead visibility area of the mast sections - with no hose reels - for wear-free operation.

## Truck Frame.

The sturdy, torsionally rigid 10 mm thick steel frame is firmly bolted to the cast counterweight. The frame is fully enclosed and thus prevents noise being amplified and protects the drive unit assembly from the ingress of dirt. Additional bracing is provided by the floor plate.



## Driver's compartment.

Constant research and development have decisively improved the driver's compartment in the R 70:

- Foot pedals arranged as they are in a car need no familiarisation (twin pedal control is available as an option).
- Drive, acceleration and braking regulated by just one pedal means simpler operation and less fatigue for the driver.
- Adjustable seating column and correctly aligned seating position provide an extremely comfortable working position for a driver of any physique.
- Inherently superior performance enhances driver enjoyment.

The driver is protected from vibrations, which can be damaging to health, by:

- resilient drive unit mountings.
- spring-mounted isolation from the chassis for the driver's compartment.
- hydraulically damped seat, adjustable for the driver's weight.
- The STILL clear view mast allied to excellent all-round visibility gives the driver maximum security against the likelihood of collision with people or objects.
- high levels of stability enable fast and smooth negotiation of bends.

## Overhead Guard.

- The overhead guard is available in different designs to cater for a wide variety of operating situations.



For further information on the R 70  
please visit: [www.still.de/R70](http://www.still.de/R70)

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