R 70 Technical Data.

LPG Forklift Trucks
R 70–20T
R 70–25T
R 70–30T

Achieve more.

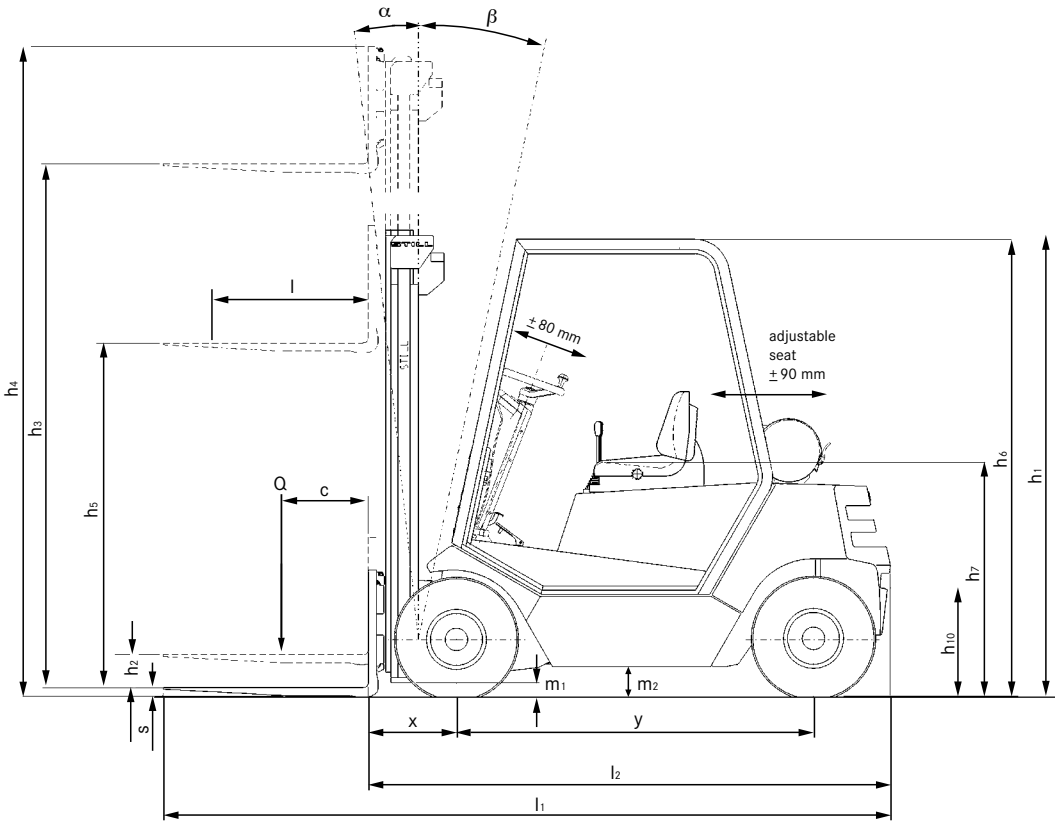
R 70 Technical Data.

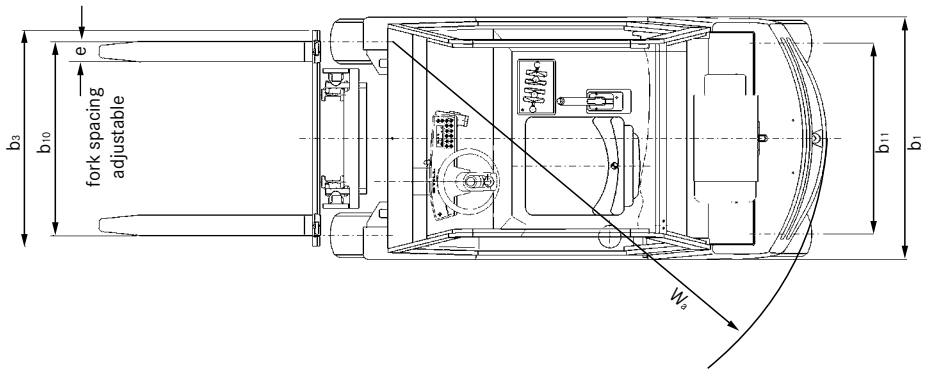
In accordance with VDI guidelines 2198, this specification applies to the standard model only.
Alternative tyres, mast types, ancillary equipment, etc. could result in different values.

Characteristics	1.1	Manufacturer			STILL		STILL		STILL	
	1.2	Manufacturer's model designation			R 70-20 T		R 70-25 T		R 70-30 T	
	1.3	Power supply – electric, diesel, petrol, gas, mains electric			gas		gas		gas	
	1.4	Type of control – hand, pedestrian, stand-on, rider seated			rider seated		rider seated		rider seated	
	1.5	Carrying capacity / load	Q	kg	2000		2500		3000	
	1.6	Load centre	c	mm	500		500		500	
	1.8	Load distance	x	mm	437		437		457	
	1.9	Wheelbase	y	mm	1740		1740		1740	
Weight	2.1	Weight		kg	3331		3744		4261	
	2.2	Axle loadings laden front		kg	4805		5590		6472	
	2.2.1	Axle loadings laden rear		kg	526		654		789	
	2.3	Axle loadings unladen front		kg	1724		1740		1814	
	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			23 x 9-10 (16 PR)		23 x 9-10 (16 PR)		23 x 9-10 (20 PR)	
	3.3	Tyre size – rear			23 x 9-10 (16 PR)		23 x 9-10 (16 PR)		23 x 9-10 (16 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_{10}	mm	945 (1220)		945 (1220)		945 (1220)	
	3.7	Track width – rear	b_{11}	mm	932		932		932	
Dimensions	4.1	Tilt angle, mast / fork carriage forwards		degrees	6		6		6	
	4.1.1	Tilt angle, mast / fork carriage backwards		degrees	11		11		11	
	4.2	Closed height	h_1	mm	2350		2350		2350	
	4.3	Free lift	h_2	mm	160		160		160	
	4.4	Lift height	h_3	mm	3320		3320		3320	
	4.5	Height, mast raised	h_4	mm	3965		3965		4130	
	4.7	Height to top of overhead guard (cabin)	h_6	mm	2230		2230		2230	
	4.8	Seat height	h_7	mm	1158		1158		980	
	4.12	Coupling height	h_{10}	mm	544		544		544	
	4.19	Overall length	l_1	mm	3552		3552		3687	
	4.20	Length to front face of forks	l_2	mm	2552		2552		2687	
	4.21	Overall width	b_1	mm	1180 (1722)		1180 (1722)		1180 (1722)	
	4.22	Fork thickness	s	mm	40		40		50	
	4.22.1	Fork width	e	mm	100		100		100	
	4.22.2	Fork length	l	mm	1000		1000		1000	
	4.23	Fork carriage to DIN 15173 – class / form A or B			ISO II B		ISO II B		ISO III B	
	4.24	Fork carriage width	b_3	mm	1040		1040		1100	
	4.31	Ground clearance beneath mast, laden	m_1	mm	130		130		130	
	4.32	Ground clearance at centre of wheelbase	m_2	mm	150		150		150	
	4.33	Aisle width for pallets 1000 x 1200 wide	A_{st}	mm	3875		3875		4001	
	4.34	Aisle width for pallets 800 x 1200 long	A_{st}	mm	4075		4075		4201	
	4.35	Outer turning radius	W_a	mm	2238		2238		2344	
	4.36	Inner turning radius	b_{13}	mm						
Performance	5.1	Speed laden		km / h	24		24		24	
	5.1.1	Speed unladen		km / h	24		24		24	
	5.2	Lift speed laden		m / s	0.56		0.56		0.44	
	5.2.1	Lift speed unladen		m / s	0.58		0.58		0.43	
	5.3	Lowering speed laden		m / s	0.6		0.6		0.6	
	5.3.1	Lowering speed unladen		m / s	0.54		0.54		0.45	
	5.5	Rated drawbar pull laden		N	16570		16570		16570	
	5.5.1	Rated drawbar pull unladen		N	10820		10920		11390	
	5.7	Gradeability laden		%	30		26		22	
	5.7.1	Gradeability unladen		%	32		28		26	
	5.9	Acceleration time laden		s	5.8	5.3	6.0	5.5	6.0	5.8
	5.9.1	Acceleration time unladen		s	5.1	4.8	5.1	4.8	5.0	5.0
	5.10	Brakes			electr. / hydr.		electr. / hydr.		electr. / hydr.	
E-Motor	7.1	Engine manufacturer			Volkswagen		Volkswagen		Volkswagen	
	7.1.1	Type			ADF		ADF		ADF	
	7.2	Engine rated power to ISO 1585		kW	34		34		34	
	7.3	Rated rpm		1 / min	2600		2600		2600	
	7.4	No. of cylinders			4		4		4	
	7.4.1	Displacement		cm^3	1800		1800		1800	
	7.5	Fuel consumption		l / h						
Other	8.1	Drive control			Stilltronic		Stilltronic		Stilltronic	
	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)	77		77		77	
	8.5	Trailer coupling, type / DIN			pin		pin		pin	

() Twin tyres 23 x 9-10/16 PR

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



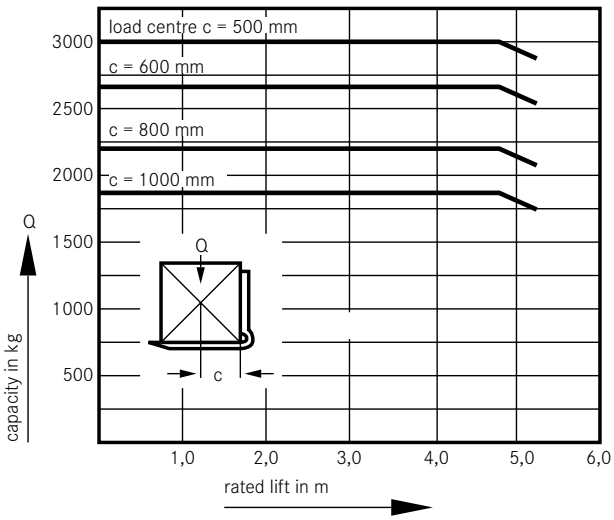


Mast types in use with pneumatic or superelastic tyres.

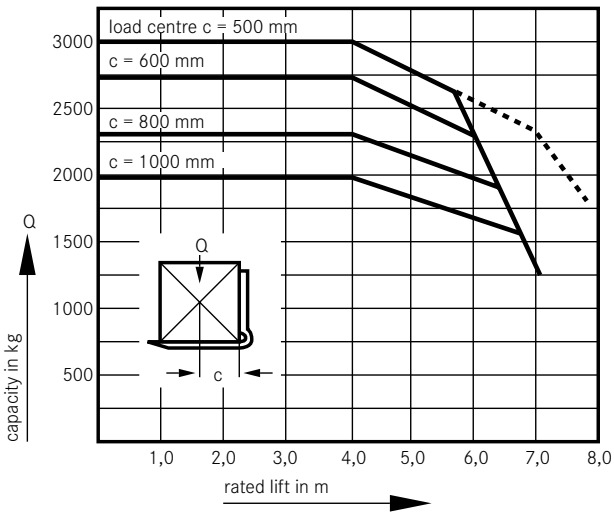
				Telescopic						Full free lift (HiLo)						Triple full free lift	
	Width B (single front wheel)	b_1	mm	1180				1280		1180				1280		1280	
	Width (twin front wheels)	b_1	mm	1722						1722						1722	
	Tilt angle	α | β		6	9	6	11	6	9	6	9	6	12	6	9	3	8
R 70-20/ 25 T	Rated lift	h_3	mm	2320-2820		2920-4020		4120-5120		2500-3000		3100-4200		4300-5300*		3580-7780	
	Height, mast lowered	h_1	mm	1850-2100		2150-2700		2750-3250		1850-2100		2150-2700		2750-3250		1850-3250	
	Height, mast raised	h_4	mm	2965-3465		3565-4665		4765-5765		3160-3660		3760-4860		4960-5960		4225-8455	
	Free lift	h_2 / h_5	mm	160						1220-1470		1570-2070		2120-2620		1220-2620	
	Length	l_2	mm	2552						2552						2577	
	Load distance	x	mm	437						437						462	
	Working aisle width Ast	A_{st}	mm	3875			4075			3875			4075			3900	4100
	Pallet 1000 x 1200 wide | 800 x 1200 long																
R 70-30 T	Rated lift	h_3	mm	2320-2820		2920-4020		4120-5120		2390-2890		2990-4090		4190-4690		3430	7630
	Height, mast lowered	h_1	mm	1850-2100		2150-2700		2750-3250		1850-2100		2150-2700		2750-3000		1850	3250
	Height, mast raised	h_4	mm	3130-3630		3730-4830		4930-5930		3200-3700		3800-4900		4993-5500		4255	8455
	Free lift	h_2 / h_5	mm	160						1070-1320		1370-1920		1970-2220		1070	2470
	Length	l_2	mm	2687						2687						2712	
	Load distance	x	mm	457						457						482	
	Working aisle width Ast	A_{st}	mm	4001			4201			4001			4201			4026	4226
	Pallet 1000 x 1200 wide | 800 x 1200 long																

* R70-25 only up to rated lift of 4800 mm

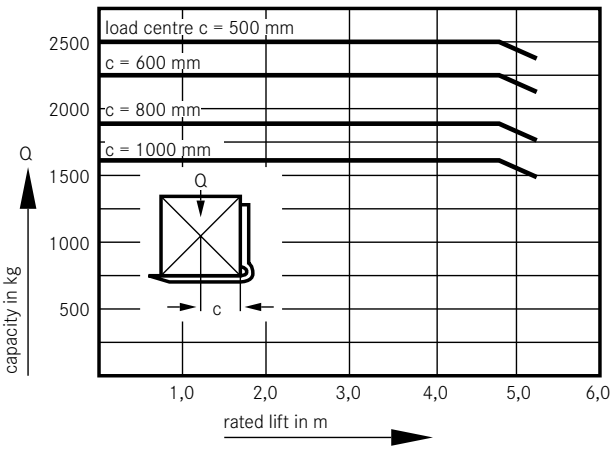
Capacity Chart R 70-30 Telescopic and HiLo Masts



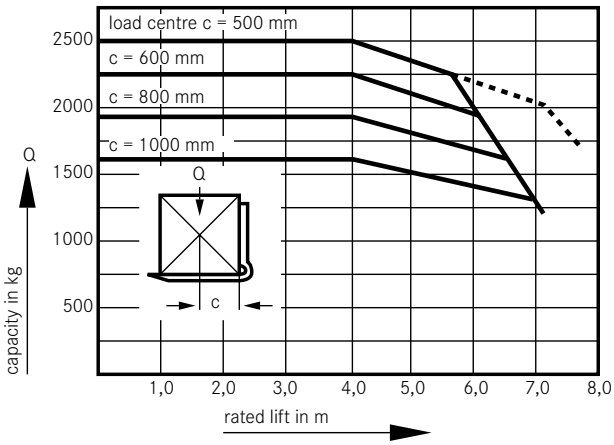
Capacity Chart R 70-30 Triple full free lift



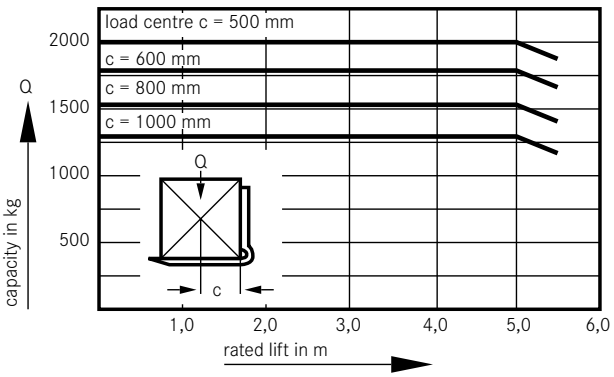
Capacity Chart R 70-25 Telescopic and HiLo Masts



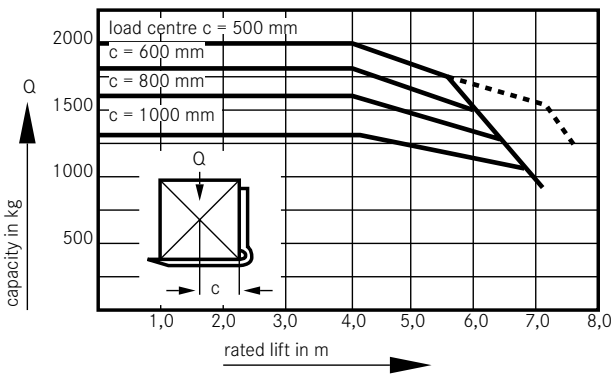
Capacity Chart R 70-25 Triple full free lift



Capacity Chart R 70-20 Telescopic and HiLo Masts



Capacity Chart R 70-20 Triple full free lift



▪▪▪▪▪▪ twin tyres

Drive.

The generator coupled to the engine generates current and feeds the drive motor through an electronic speed and power regulator.

The drive has the following advantages:

- The truck constantly holds the speed set by the foot pedal regardless of gradient. This makes for safe driving and implifies operation.
- The travel speed is controlled independently of the lift speed. Therefore fast hoisting and slow driving (inching) can take place at the same time without special equipment. This is completely free of wear, saves on operating costs and simplifies operation.

- Wear free braking is achieved through the drive system: both to a standstill and then holding the truck in position. Even on a gradient, the R 70 will remain stationary until the drive pedal is depressed – holding it with the brake pedal is not necessary. This simplified operation takes the pressure off the driver when positioning the forks or the load.
- The driver can electronically adjust the performance characteristics at any time to suit the job in hand. Thus, he can adapt his truck to all working conditions and thereby achieve maximum productivity.
- Resilient engine mounts prevent vibrations being transmitted through the truck to the driver.
- The R 70 enjoys the high reliability, long life and low maintenance costs of an electric drive.

Service brake.

- The service brake is a maintenance-free multi-disc brake which runs in an oil bath and is both wear free and silent in operation. New brake linings will never be needed.
- The multi-disc brake is encapsulated to protect it from dirt and water.
- Readjustments are a thing of the past.
- The maintenance-free, silent multi-disc brake does away with the servicing costs common to other brakes, which constitute up to 30% of the overall maintenance costs.

Electrics.

The digital electrical system allows simple adaptation to altered operating conditions. The exchange of information between electrical assemblies, e.g. between the drive controller and the cockpit, is achieved using the CAN bus system already used successfully in other types of vehicle. The number of cables and plug connectors is reduced in comparison to the previous system and thus reliability is increased.

Driver's compartment.

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

- The cockpit has an LCD display and a facility for the driver to select from a range of pre-set drive performance levels. He can select the most suitable acceleration or braking and travel speeds from 5 pre-set options. Further adjustments of the drive parameters to suit the application conditions can be made by simply altering the software.
- Automotive style pedal arrangement*, no driver learning curve.
- Roomy footwell with inclined floor plate and non-slip rubber matting.
- Automotive style hand brake to the right of the driver's seat.
- Drive and braking regulated by the drive pedal position make it simple and easy for the driver.
- Adjustable steering column plus reach and rake adjustment for the seat provide an extremely comfortable working position for any physique.
- The driver is protected from vibrations which could damage his health by the
  - resiliently mounted drive unit
  - rubber mounting for driver's compartment
  - hydraulically damped seat, adjustable to the driver's weight.

Driver's compartment.

Mast.

STILL clear view masts in Telescopic, HiLo and Triplex designs for every application:

- Telescopic: the mast suitable for most applications. Economical mast design. The hoist chains are run in protective guide rails. This prevents noise and increases chain life.
- HiLo: for high stacking under low ceilings. Utilises the space right up to the roof.
- Triplex: for applications with low doorways and greater stacking heights. Utilises the space right up to the roof.
- Fork carriage: Completely redesigned for this truck, gives a clear view onto the load being picked up, thanks to its optimised profiles.

Steering.

Light, fully hydraulic power steering provides great manoeuvrability and thus a high throughput of goods. A single hydraulic pump supplies the hoist and steering systems. Hydraulic oil for the steering is diverted from the general hydraulic circuit by a priority valve.

Overhead guard.

The overhead guard is available in different designs so that the R 70 can be adapted to a wide range of applications and driver requirements. When the roof-cover version overhead guard is specified, a cab can be fitted with ease.

Safety.

The STILL clear view mast and good all round visibility ensure the highest possible safety levels.
The new R 70 complies with all applicable EC safety requirements and regulations. It thus carries the "CE" symbol.

Quality.

All forklift trucks from STILL comply with the ISO 9001 quality standard. They are carefully constructed and manufactured. The materials used are checked to stringent standards.

* available with twin pedal control if required

For further information on the R 70 please visit: www.still.de/R70

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R 70 20 30 T 11 e 05/05 TD Subject to technical modifications.