

SM180
BEC07C1-01

FORKLIFT TRUCK

FG40Z/40/45-7
FD40Z/40/45-7

KOMATSU FORKLIFT USA

SHOP MANUAL

FG40Z/40/45-7 **FD40Z/40/45-7**

MACHINE MODEL	SERIAL NO.	ENGINE
FG40Z-7	and up	TB42
FG40/45-7	and up	TB42
FD40Z-7	and up	6D102E
FD40/45-7	and up	6D102E
FG35S/45S-7	and up	TB42
FG35BCS-7	and up	TB42

PRECAUTIONS WHEN PERFORMING THE SERVICE WORK

Always pay attention to "Safety" before starting any work – this is important.

Never attempt any work where danger to yourself or to other persons.

Whenever work requiring safety precautions are described in this manual, a flag mark  inserted, always make double sure that safety measures are taken.

Other unmarked work, should always be performed after studying and using your common sense to prevent accidents.

DESCRIPTION OF THE SYMBOLS

The symbols described below are used in this manual for convenience and better understanding

Symbol	Item	Description
	Safety	Special safety precautions are needed to perform the work.
	Note	Special technical precautions are needed to perform the work.
	Tightening torque	Fastening parts that require specified tightening force when assembling.
	Weight	Weight of parts or systems.
	Coat	Places to be coated with adhesives, etc. When assembling.

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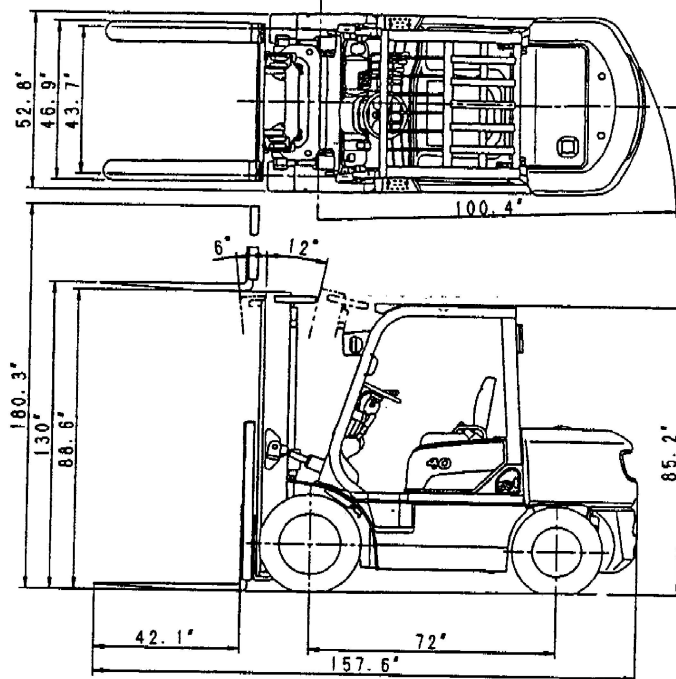
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01. GENERAL AND SPECIFICATIONS

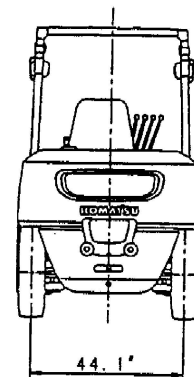
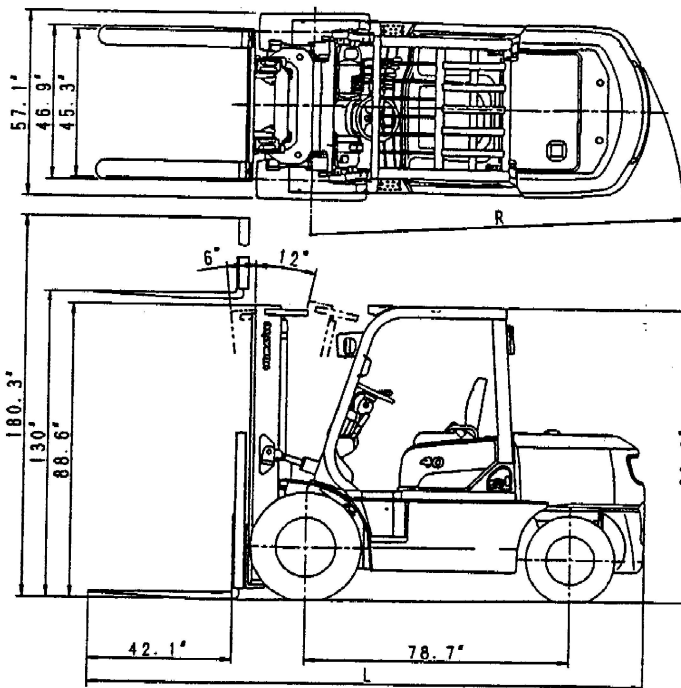
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SPECIFICATIONS

PNEUMATIC TYPE

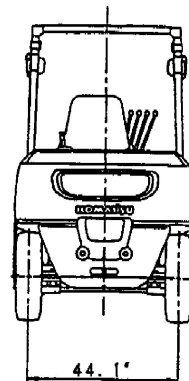


Unit: inch

Pneumatic compact car
HWZ01650

Unit: inch

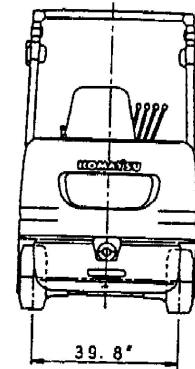
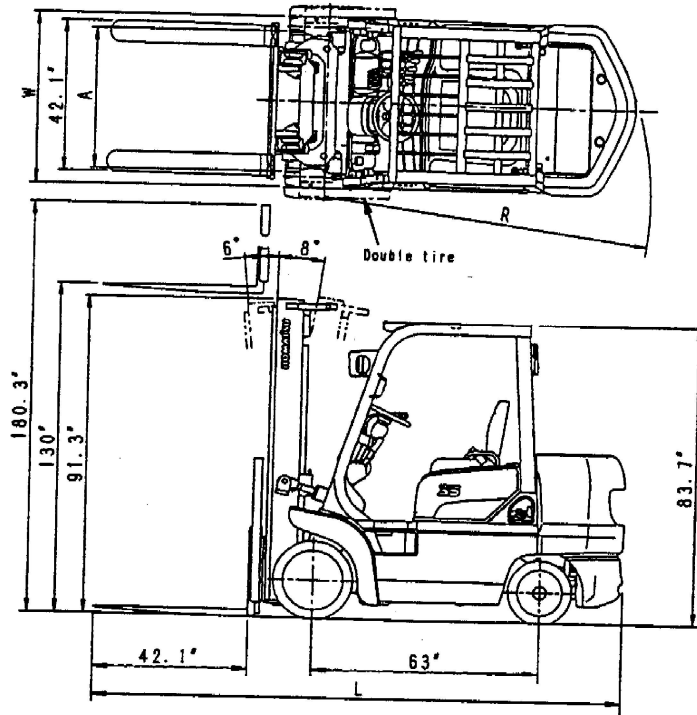
	FG(D)40	FG(D)45
L	164.5°	166.3°
R	108.3°	109.4°

Pneumatic std.
HWZ01651

CUSHION TYPE

Unit: inch

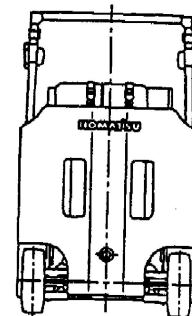
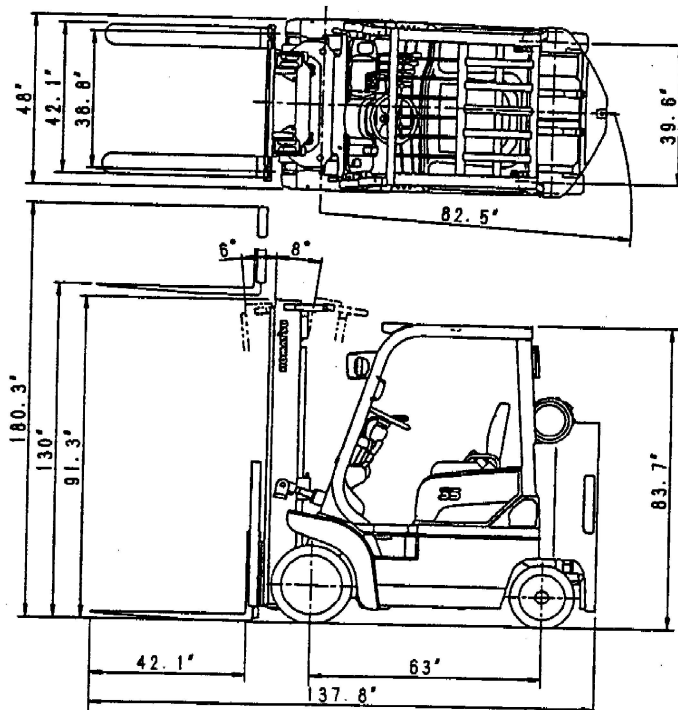
	FG35S	FG45S
L	146°	150.2°
R	90°	93.7°
A	38.8°	41.9°
W	48°	53.9°



Cushion Std.

HWZ01652

Unit: inch



Cushion Box Car Special

HWZ01653

SPECIFICATIONS

Characteristics	1.2	Model	Manufacturer's Designation		FG40ZT-7	FG40ZT2-7	FD40ZT-7	FD40ZT2-7	
	1.3	Power type	Electric, Diesel, Gasoline, LPG, Cable		Gasoline		Diesel		
	1.4	Operation Type	Pedestrian, Driver Standing, Siting, Order Picking		Sitting				
	1.5	Rated Capacity	Q	Rated Capacity	lbs(kg)		9,000 (4,080)		
	1.6	Load Center	c	Rated Load Center	in.(mm)		20 (500)		
	1.6.1	Alternative Capacity	Q2	Capacity @600mm load center	lbs(kg)		8,000 (3,630)		
	1.8	Load distance	x	Front Axle Center to Fork Face	in.(mm)		20.1 (510)		
	1.9	Wheelbase	y		in.(mm)		72.0 (1830)		
	Weight	2.1	Service Weight			lbs(kg)		12,400 (5,625)	
2.2		Axle Loading	Loaded (at Q2)	Front	lbs(kg)		18,065 (8,195)		
Rear				lbs(kg)		2,335 (1,060)			
2.3.1			Unloaded	Front	lbs(kg)		5,170 (2,345)		
Rear				lbs(kg)		7,230 (3,280)			
Tyres	3.1	Tyre Type	Cushion, Elastic, Cushion, Pneumatic, Polyurethane		Pneumatic				
	3.2	Tyre Size	Front		250-15-16PR(I)				
	3.3		Rear		7.00-12-12PR(I)				
	3.5	Number of Wheel	Front/Rear(x=driven)		2/2				
Basic Measurement	3.6	Tread, Front	b10		in.(mm)		43.7 (1110)		
	3.7	Tread, Rear	b11		in.(mm)		44.1 (1120)		
	4.1	Tilting Angle	a/β	Forward/Backward	degree		6/12		
	4.2	Mast Height, Lowered	h1	2-stage Std. Mast	in.(mm)		88.6 (2,250)		
	4.3	Std. Free Lift	h2	2-stage Std. Mast from Ground	in.(mm)		6.7 (170)		
	4.4	Maximum Fork Height	h3	2-stage Std. Mast from Ground	in.(mm)		130 (3,300)		
	4.5	Mast Height, extended	h4	2-seage std. Mast	in.(mm)		180.3 (4,580)		
	4.7	Height, Overhead Guard	h6		in.(mm)		85.2 (2,165)		
	4.19	Length, with Std.Forks	L1		in.(mm)		157.7 (4,005)		
	4.20	Length, to Fork Face	L2		in.(mm)		115.5 (2,935)		
	4.21	Width, at Tyre	b1	Single	in.(mm)		52.8 (1,340)		
	4.22	Forks	s/e/l	Thickness/Width/Length	in.(mm)		2(50)/6(152)/42.1(1070)		
	4.23	Forks Carriage Class	ISO 2328, Type A/B/no		class 3, TYPE A				
	4.24	Width, Fork Carriage	b3		in.(mm)		47 (1,195)		
	4.31	Ground Clearance	m1	under Mast	in.(mm)		5.5 (140)		
	4.32	Ground Clearance	m2	at center of Wheelbase	in.(mm)		6.7 (170)		
	4.33	Right Angle Stacking Aisle	Ast	with 1000x1200 pallet, lateral	in.(mm)		159.8 (4,600)		
	4.34	Right Angle Stacking Aisle	Ast	with 800x1200 pallet, straight	in.(mm)		152 (3860)		
	4.35	Turning Radius	Wa		in.(mm)		100.4 (2550)		
	Performance	5.1	Travel speed(FWD)	loaded	mpm(km/h)	11.8(19.0)	13.4(21.5)	11.2(180)	12.4(20)
		unloaded		mpm(km/h)	12.7(20.5)	14.3(23)	12.1(19.5)	13.7(22)	
5.2		lifting Speed	loaded/unloaded	fpm(mm/s)	100/112 (510/570)	110/116 (560/590)			
5.3		Lowering Speed	loaded/unloaded	fpm(mm/s)	94/108 (480/550)				
5.6		Max. Drawbar Pull	loaded	lbs(KN)	6,410(28.5)	8,810(39.2)	7,230(32.2)	9,760(43.7)	
5.8		Max. Gredeability	loaded/unloaded	%	32/21	47/21	35/21	52/21	
5.10		Service Brake	Operation/Control		Hydraulic				
5.11		Parking Brake	Operation/Control		Mechanical				
5.12		Steering	Type		F.H.P.S.				
I. C. Engine		6.4	Battery	Voltage/Capacity at 5-hour rating		V/Ah		12/60	
		7.1	Make/Model					24/70	
		7.2	Rated Output SAE gross			HP(KW)		TB42	
	7.3	Rated RPM			min		88 (65)		
	7.3.1	Max. Torque SAE gross			lb-ft(NM)@min		2300		
	7.4	No. of Cylinder/Displacement			cu.in.(cm³)		6/254 (4169)		
	7.6	Fuel Tank Capacity			U.S.gals(liters)		23 (85)		
	8.2	Relief Pressure for Attachment			psi(bar)		2,650 (181)		
Others	8.2.1	Hydraulic Tank Capacity			U.S.gals(liters)		15 (55)		
	8.6	Clutch Type			Torque Converter				
8.7	Transmission type			TORQFLOW					