

## MANTED®-data

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## Vehicle main data

MAN code	IDDN1UDN (21.10.2020 11:37:07)		
Variant	TGS 41.400 8x4 BB CH	Frame side member profile	270 x 85 x 9,5 (Profile number: 32)
Wheelbase	1795 + 2980 + 1400	Frame overhang	800
Type code	39E (0T0CB)		
Cab	Local transport cab NN (0P2DL)		
Vehicle kind	Vehicle type Tipper (KI) (0P2UN)		
steering	Left-hand-drive (0P3AS)		
type	Frame type, medium-high (0P2TQ)		
Engine	Diesel engine MAN D2066 LF06, 294 kW (400 hp) output, 1,900 Nm torque, Euro 2 (0P6BR)		
Application segment	Construction (0P6WH)		
Body designation	021 Tipper, three-way (0P2QG)		

## Equipment

### Suspension

Leaf-spring suspension on front axle, parabolic, 3-leaf, steel	0P1JE	Leaf-spring suspension on 2nd front axle, parabolic, 3-leaf, steel	0P1JS
Leaf-spring suspension on rear axle, trapezoidal, steel	0P1J4	Leaf-spring suspension on 2nd rear axle, trapezoidal, steel	0P1JN

### Axles

#### Axle type

Front axle, 9,200 kg, not driven, straight, steered, not liftable	0P5EX	2nd front axle, 9,200 kg, not driven, straight, steered, not liftable	0P4ZH
Without leading axle	0P5E5	Rear axle, 13,000 kg, planetary axle with drive shaft, straight, not steered, not liftable	0P4ZM
2nd rear axle, 13,000 kg, planetary axle without drive shaft, straight, not steered, not liftable	0P4Y7	Without trailing axle	0P4Z3

#### Axle drive

Rear axle as planetary axle, driven, permanent	0P1GU		
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#### Brake version

Drum brakes on front axle	0P1IA	Drum brakes on 2nd front axle	0P1IJ
Drum brakes on rear axle	0P1I5	Drum brakes on 2nd rear axle	0P1IF

#### Manoeuvrability

Front axle, steered	0P1K4	2nd front axle, steered	0P1KA
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#### Axle ratio

Axle ratio, i = 4.00	0P0D2		
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## Wheels

#### Felgen

Rim size, front axle, 10-hole, 9.00x22.5	0P0NI	Rim size, 2nd front axle, 10-hole, 9.00x22.5	0P0OH
Rim size, rear axle, 10-hole, 9.00x22.5	0P0MU	Rim size, 2nd rear axle, 10-hole, 9.00x22.5	0P0O7

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### Tyres

Front axle tyres Michelin 315/80R22.5 WORKS Z Steering-Road+Offroad TL	0PEWA	Tyres 2nd front axle Michelin 315/80R22.5 WORKS Z steer S+G TL	0PFH6
Rear axle tyres Michelin 315/80R22.5 WORKS D Drive-Road+Offroad TL	0PDQH	Tyres for 2nd rear axle Michelin 315/80R22.5 WORKS D Drive-Road+Offroad TL	0PDZ8

### Trailer coupling

Towing coupling at final cross member, ROCKINGER SK5	0P1MZ	No fifth-wheel coupling	0P1RJ
Without ball-head coupling	0P1R6	Without trailer/towing coupling at double final cross member, bottom	0P1NV
Without trailer/towing coupling on low coupling mount	0P1NT		

### Compressed-air system

#### Compressed air tank

Steel compressed-air tank	0P0XH	Without compressed-air tank installation	0P0WV
Without compressed-air tank, additional	0P1GN		

#### Compressed-air connection body supply

Compressed-air connection for body supply	0P0XE		
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#### Compressed-air connection trailer

Without trailer brake connection at end of frame, left	0P1NY	Without trailer-brake connections on front of vehicle	0P6WV
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### Electrics

#### Battery

Battery, 12 V, 175 Ah, 2 units, maintenance free	0P0WA		
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#### Alternator

Alternator, Basic	0P1BV		
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#### Interface for body

Interface for data exchange with body (DIN), behind cab	0P2N8	Without electrical preparation for gritter (displacement/speed signal)	0P2KL
Without preparation, electrical, for hydraulic liftgate	0P1G1	Without preparation for engine start/stop facility	0P0K6
Without preparation for additional speed limitation, engine speed regulation	0P0CN	No additional wiring harness for rear lights	0P2AU

#### Fuses for body

No safety devices, electric, for non-MAN bodies	0P1V4		
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#### Air suspension control

Without ECAS parameter input for lowering air suspension	0P1KR	Without ECAS parameterisation for auxiliary circuit for suppression of level control	0P1KV
Without parameter input, additional ECAS operating options	0P1KZ		

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### Electrical connections for trailer

Without adapter for trailer socket on rear of vehicle	0P8KS	Without adapter for trailer socket on frame end, central	0P8OC
Without trailer socket for anti-lock brake system (ABS)	0P1O9	Without trailer socket at frame end	0P1OW
Without trailer socket on low coupling mount	0P1P0	Without additional trailer socket at frame end	0P1T1

### Gas system

Exhaust silencer, vertical, right	0P1BK	Exhaust tailpipe, behind cab, right, vertical, with exhaust manifold	0P1BP
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### fuel tank

#### Diesel tank

Fuel tank capacity 400 l, right	0P4ED	Fuel tank, right, steel	0P4GN
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### Luftansaugung

Air intake, behind cab, raised	0P0AY		
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### gearbox/power take-offs

#### Gearbox

Manually operated gearbox, MAN 16.25 OD	0P5VL		
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#### Power take-off

PTO, gearbox-dependent, type NH/4c, without flange, f=1.17/1.40, position approx. 3 o'clock	0P4QI	Without PTO, engine-dependent	0P4WK
Without power take-off on transfer case	0P4YC	Without PTO, PTO-dependent	0P4TE

### Guard plates

Mudguard, front axle	0P1AT	Mudguard, 2nd front axle, removable upper shell	0P1B8
Without mudguards on leading axle	0P1AW	Transfer mudguard, rear axle	0P1AQ
Transfer mudguard, 2nd rear axle	0P1B6	Without mudguards on trailing axle	0P1AS

### Underride protection

Without underride protection, front	0P1FM	Without underride protection, side	0P1FG
Underride protection, rear, round	0P1FD		

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## Dimensions

### Longitudinal Dimensions

Total length (BEP-L001)	8922	Theoretical wheelbase (BEP-L015)	4577
Front overhang according (BEP-L016)	1607	Front overhang according to 2007/46	1475
Rear frame overhang (BEP-L019)	800	Middle front axle to end of cab (BEP-L063)	405
Distance from first front axle to body (BEP-L102)	830	Length of frame behind cab	6145
Back edge of final cross member to last wheel middle (final cross member)	650	Back edge of the final cross member to last wheel middle (low coupling system)	-
Front edge to coupling kingpin	8370	Distance to kingpin from front axle, nominal position (BEP-L073)	-
Distance to kingpin from rear axle, nominal position (BEP-L076)	-	Fifth wheel lead	-
Body centre of gravity, front position	3160	Centre of gravity, rearmost position	3311
Minimal body length	6456	Maximale Aufbau­länge	6758

### Width Dimensions

Overall chassis width with cab (BEP-W001)	2981	Width above cab (BEP-W002)	2240
Frame width in front area (BEP-W035)	940	Frame width in rear area (BEP-W036)	760

### Height Dimensions

Maximum external height, unladen (BEP-H001)	3261	Maximum external height, laden (BEP-H002)	3198
Frame height at theoretical rear wheelbase, unladen (BEP-H039)	1176	Frame height at theoretical rear wheelbase, laden (BEP-H040)	1081
Lifting from the driving position, front (BEP-H046)	0	Lowering from the driving position, front (BEP-H047)	0
Lifting from driving position, rear (BEP-H048)	0	Lowering from the driving position, front (BEP-H049)	0
Fifth-wheel height above ground, unladen	-	Fifth-wheel height above ground level, laden	-
Ability to drive through water in accordance with DIN 14502-2	-		

### Circle Dimensions and Radii

Turning track diameter (BEP-W011)	19.4	Turning circle diameter (BEP-W012)	21.2
Slew radius front (BEP-L078)	0	Slew radius rear (BEP-L079)	0

### Disclaimer:

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## Weights

Weight			
Chassis weight with cab	10709	Weight of chassis at front	6623
Weight of chassis at rear	4086	Payload	30291
Legally permissible loads			
Legally permissible axle load on the 1st axle (BEP-M041.1)	8000	Legally permissible axle load on the 2nd axle (BEP-M041.2)	8000
Legally permissible axle load on the 3rd axle (BEP-M041.3)	13000	Legally permissible axle load on the 4th axle (BEP-M041.4)	13000
Legally permissible axle load on the 5th axle (BEP-M041.5)	0	Legally permissible axle load on the 6th axle (BEP-M041.6)	0
Legally permissible overall vehicle weight (BEP-M002)	41000	Legally permissible gross train weight	0
Legally permissible trailer load (BEP-M011)	0		
Technically permissible loads			
Technically permissible axle load on the 1st axle (BEP-M040.1)	8000	Technically permissible axle load on the 2nd axle (BEP-M040.2)	8000
Technically permissible axle load on the 3rd axle (BEP-M040.3)	13000	Technically permissible axle load on the 4th axle (BEP-M040.4)	13000
Technically permissible axle load on the 5th axle (BEP-M040.5)	0	Technically permissible axle load on the 6th axle (BEP-M040.6)	0
Technically permissible gross vehicle weight (BEP-M001)	41000	Technically permissible gross train weight	0
Technically permissible trailer load (BEP-M010)	0		
Technically Plus permissible loads			
Technically Plus permissible axle load on the 1st axle	8000	Technically Plus permissible axle load on the 2nd axle	8000
Technically Plus permissible axle load on the 3rd axle	13000	Technically Plus permissible axle load on the 4th axle	13000
Technically Plus permissible axle load on the 5th axle	0	Technically Plus permissible axle load on the 6th axle	0
Technically Plus permissible gross vehicle weight	41000	Technically Plus permissible gross train weight	0
Technically Plus permissible trailer load	0		

## Body calculation

No data available.

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## Drawings

### Chassis drawing

#### 2D chassis drawing

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No data available.

#### 3D complete vehicle model

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No data available.

Cable routing is not shown on the chassis drawing.

### Frame rails

#### Frame rails left (81.41164-0330)

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DWF	81-41164-0330_1_L.dwf
DWG	81-41164-0330_1_L.zip
DXF	81-41164-0330_1_L.zip
PDF	81-41164-0330_1_L.pdf

#### Frame rails right (81.41174-0330)

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DWF	81-41174-0330_1_S.dwf
DWG	81-41174-0330_1_S.zip
DXF	81-41174-0330_1_S.zip
PDF	81-41174-0330_1_S.pdf

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## Power take offs

Direction of rotation is to be understood as 'looking towards the journal', i.e. towards the point of output. Tables and schematic representation see MANTED Guide to Fitting Bodies.

### PTO to gearbox - gearbox-dependent

#### PTO (ISO 21308: BEP-G121.n)

manufacturer	ZF	Description (ISO 21308: BEP-G120.n)	NH/4c
Connection	Pump	version	ISO 7653
installation location	gearbox end	Weight	5.5
oil volume	0.5	Operating time at max. 110° oil temperature	short-time operation (<60 min)
rotation direction	links	permitted mass moment	50.0
expandable	Yes	Comment	-
Sales code	0P4QI		

#### Gearbox

manufacturer	ZF	Description (ISO 21308: BEP-G050)	16S-2530 TO
Variant	Standard	sale designation	ZF 16 S 253 OD
transmission bell housing (TBH)	integrated	Diameter main drive flange	180
length (TBH up to MOF)	1015	weight filled	329
min. transmission	13.81	max. transmission	0.84
Comment	-	SAE connection	1
Sales code	0P5VL		

#### Position, DN factor, torque in Nm

position of power take-off at the gearbox	rechts	speed factor f fast	1.40
speed factor f slow	1.16	Max. output torque at 1500 revolutions at PTO	430

#### Hint:

A point of output is assigned. The maximum output torque is possible.

#### Installation position

from first front axle	1517	below frame upper edge	-301
right of the vehicle centre	234		

All dimensions relate to centre of the power take-off or the rear edge of the flange or pump mounting surface.  
+/- 25 mm tolerance in each direction.

### PTO to gearbox - PTO-dependent

No data available.

### PTO - engine-dependent

No data available.

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## **Emissions**

### **CO2 emissions according to Regulation (EU) 2017/2400**

No data available.

### **Emission calculator according to directive 2009/33/EG**

Print output is created via separate print switch in the emissions calculator.

## **Liftgate calculation**

No calculation data entered.



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## **Guide To Fitting Bodies**

### **Series TG (including TG new)**

Guide to Fitting Bodies edition 2020 V2.0 (PDF, 25.000 KB, 10/2020)  
Additional information Guideline To Fitting Bodies edition 2020 V1.0 (PDF, 8.500 KB, 05/2020)

### **Additional booklet on exhaust system**

Exhaust system 2020 V1.0 (PDF, 25.000 KB, 01/2020)

### **Additional booklet on PTO**

PTO edition 2020 V2.0 (PDF, 15.000 KB, 10/2020)  
Power take-off variants for MAN gearboxes (PDF, 700 KB, 09/2016)  
Power take-off variants for ZF gearboxes (PDF, 2.600 KB, 09/2017)

### **Additional booklet on mechanical coupling components**

coupling devices (PDF, 2.500 KB, 10/2020)

### **Additional booklet on electrical interfaces TG (new)**

ZDR Edition 2020 V2.0 (PDF, 1.500 KB, 10/2020)  
ZDR with data exchange Edition 2020 V2.0 (PDF, 2.092 KB, 10/2020)