

Steyr 6160 CVT

Tractor Test No. 1974/12

APPLICANT

Case Steyr Center
Murzlenstrasse 80
8166 Niederweningen

TRACTOR

Manufacturer: CNH
Model: Steyr 6160 CVT
Approval certificate no.: 4SB2 27

SUSPENSION AND BRAKES

Central four-wheel drive with powershift transmission
Front axle suspension (disengageable)
Wet disc brake on front and rear axle
Automatic all-wheel activation
Electronic parking brake

DRIVER PROTECTION

Integrated safety cab with mechanical suspension

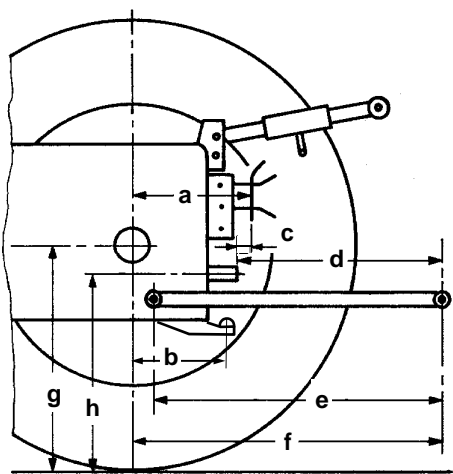


TYRES

	Track width:
front: 540/65 R28	1820 mm
rear: 650/65 R38	1840 mm

DIMENSIONS

Length:	— mm
With front mounting:	5400 mm
Front overhang from steering wheel:	3200 mm
Width:	2530 mm
Height:	3100 mm
Wheelbase:	2800 mm
Ground clearance:	430 mm
Turning diameter:	12,7 m (without four-wheel drive) 13,5 m (with four-wheel drive)



Rear

a:	780 mm
b:	— mm
c:	200 mm
d:	610 mm
e:	980 mm
f:	1190 mm
g:	845 mm
h:	815 mm

Front

d:	— mm
e:	940 mm
f:	1260 mm
g:	650 mm
h:	— mm

TEST EQUIPMENT

- front 3-Point Hitch
- air-conditioning compressor
- air compressor

WEIGHT

in test equipment

Front:	3130 kg	43 %
Rear:	4190 kg	
Total:	7320 kg	

Permissible front axle load:	4900 kg
Permissible rear axle load:	8500 kg
Permissible total weight:	11500 kg

Payload:	4180 kg
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Towed weight, braked:	32 000 kg
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CAPACITIES

Fuel tank	330 l	
AdBlue tank	48 l	
Engine oil	15 l	(change interval 600 h)
Gearbox and Hydraulic oil	68 l	(change interval 1200 h)

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ENGINE (Manufacturer's data)

Manufacturer: Iveco
 Model: F4 DFE 613A
 Injection: Diesel direct injection
 CommonRail
 Supercharging: Exhaust gas turbocharger and air-to-air intercooling
 Exhaust emission treatment: SCR

Bore/stroke: 104 / 132 mm
 Cylinders / capacity: 6 / 6728 cm³
 Cooling: Water, viscous fan

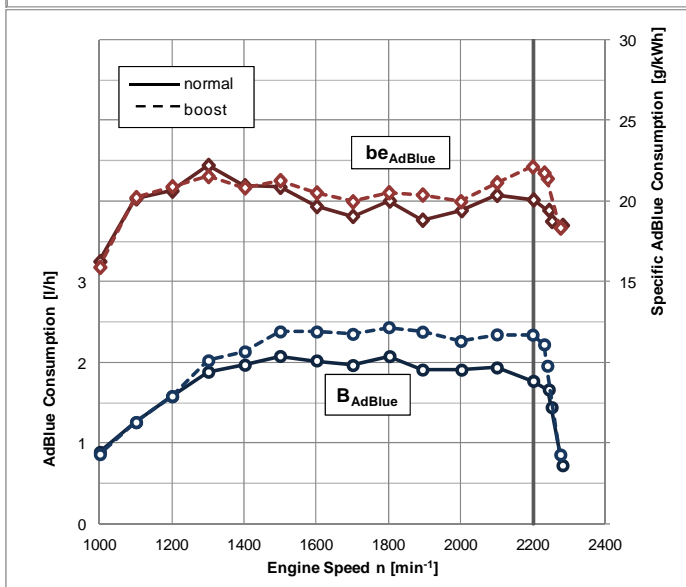
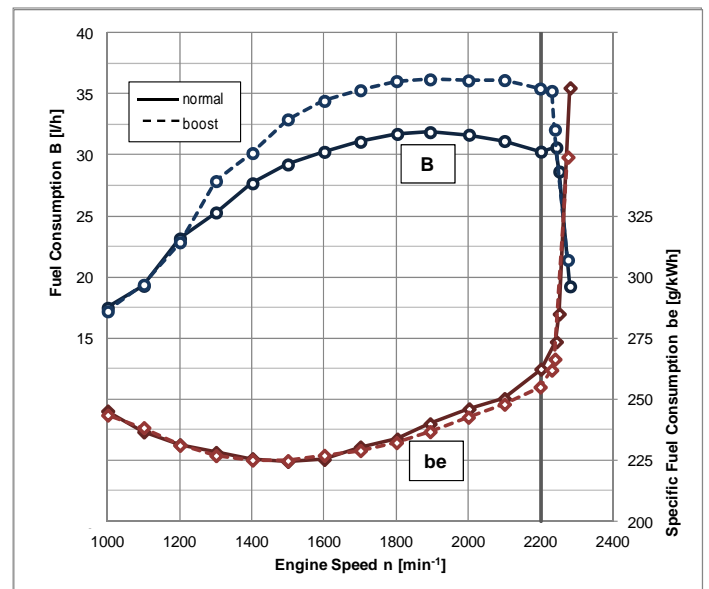
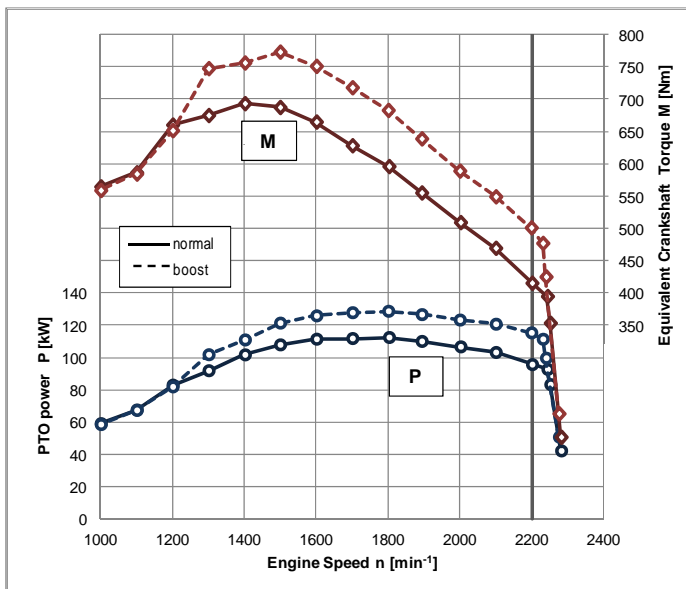
Rated power: 118 kW (160 PS) ECE R120
 With boost: 140 kW (190 PS) ECE R120

Rated engine speed: 2200 min⁻¹
 Exhaust stage: IIIB

POWER TAKE-OFF MEASUREMENT

Criteria for boost activation

- Transportation work:
Speed in excess of 18 km/h
- PTO work:
minimum 25 HP PTO power and 0,5 km/h driving speed



Measurement conditions:

- air temperature 21 °C
- relative atmospheric humidity 25 %
- atmospheric pressure 950 mbar

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Full load test values

		Speed [min ⁻¹]		Power		Fuel consumption		AdBlue consumption	
		Engine	PTO	kW	HP	Specific [g/kWh]	Absolute [l/h]	Specific [g/kWh]	Absolute [l/h]
Rated power	normal	2200	1162	95,6	130,0	262	30,3	20	1,8
	boost			115,3	156,7	255	35,4	22	2,3
Maximum power	normal	1800	951	112,3	152,7	234	31,7	20	2,1
	boost			128,7	174,9	232	36,0	21	2,4
Normal speed PTO	normal	1893	1000	110,0	149,5	240	31,9	19	1,9
	boost			126,6	172,1	237	36,2	20	2,4

Max. torque: 693 Nm at 1400 min⁻¹
 Torque increase: 67 % at 36 % speed drop
 Starting torque: 136 %
 Idling speed: 850 min⁻¹
 Cutoff speed: 2310 min⁻¹

Boost

773 Nm, at 1500 min⁻¹
 54 % at 32 % speed drop
 112 %

Partial load values

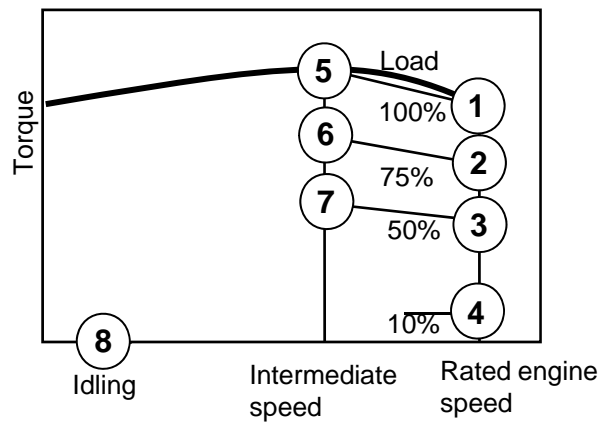
Fuel consumption with 42,5 % partial load at normal PTO speed

PTO shaft Fuel AdBlue
 1000 min⁻¹: 303 g/kWh, 17,1 l/h 20 g/kWh, 0,9 l/h
 1000E min⁻¹: — g/kWh, — l/h — g/kWh, — l/h

Boost

Fuel AdBlue
 287 g/kWh, 18,7 l/h 18 g/kWh, 0,9 l/h
 — g/kWh, — l/h — g/kWh, — l/h

In characteristic diagram (with boost)



Measuring point	Fuel consumption		AdBlue consumption	
	Specific [g/kWh]	Absolute [l/h]	Specific [g/kWh]	Absolute [l/h]
1	255	35,4	22	2,3
2	269	28,2	19	1,5
3	311	21,7	18	1,0
4	791	11,2	23	0,2
5	225	32,9	21	2,4
6	226	24,8	20	1,7
7	247	18,1	20	1,1
8	-	2,5	-	0,0

EMISSIONS

Exhaust gas emissions

▪ Black smoke 0,00 SZ (BOSCH)

Emissions according to ISO 8178-4, C1

(with boost)

▪ Hydrocarbons HC 0,03 g/kWh*
 ▪ Nitrogen oxides NOx 1,93 g/kWh*
 ▪ Carbon monoxide CO 0,46 g/kWh*
 ▪ Particulate number Pn 2,6E13 #/kWh*
 ▪ Cycle consumption
 Fuel 266 g/kWh* (21,9 l/h)
 AdBlue 21 g/kWh* (1,3 l/h)

Noise level

▪ Noise level at driver's ear: 72,0 dB(A)
 ▪ Passing noise: 84,5 dB(A)

* With reference to PTO power



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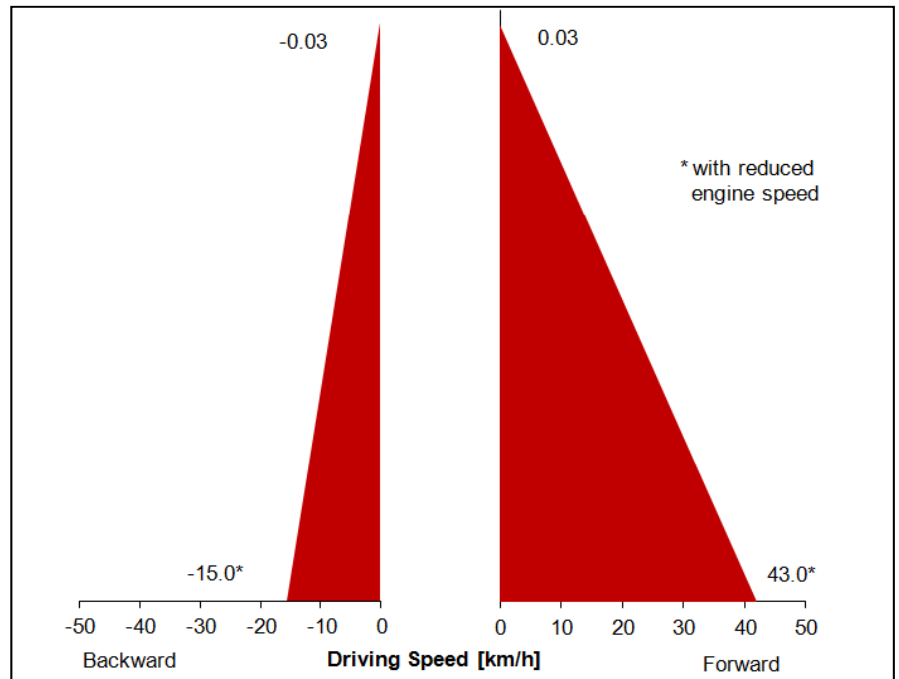
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TRANSMISSION

Travel gear

- Continuously variable transmission
- hydrostatic / mechanical power split

Driving speed at rated engine speed
(tyre radius $r = 875$ mm)



PTO transmission

Rear

- Wet multi-plate clutch, electro-hydraulic engagement

Front

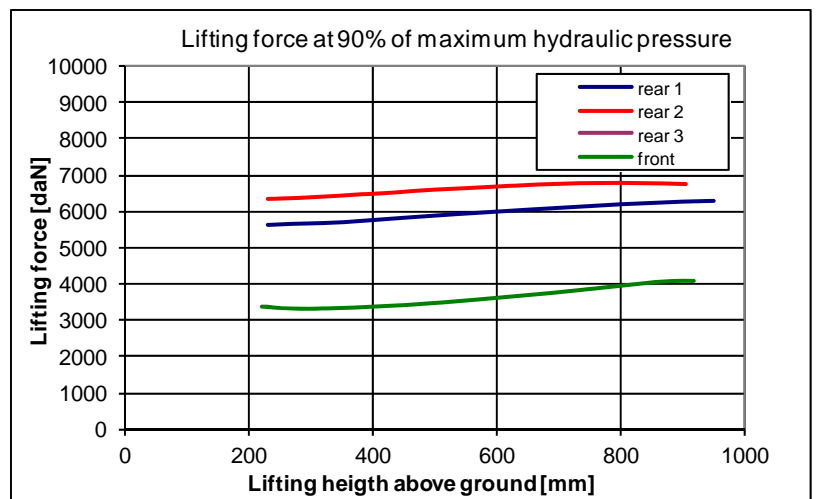
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PTO shaft	Rear						Front
	430	540	540E	1000	1000 E	Ground speed	1000
Engine speed	-	1969	1546	1893	-	-	-

HYDRAULICS

Remote hydraulics

- max. oil pressure: 205,6 bar
- max. flow rate : 139,6 l/min
- flow rate: 135,0 l/min at 174,8 bar
- max. hydraulic power: 40,0 kW (131,0 l/min and 183,2 bar)
- max. flow rate through a single coupler: 99,7 l/min
- max. quantity of oil taken: 31 (45) l



3-Point Hitch

Rear

3-Point Hitch, category: III
Control hydraulics via lower link, (EHR)

Front

3-Point Hitch, category: II / III

Measurement	Lifting movement	Lifting force at 90% pressure		
		Continuous	Maximum	
Rear	Lower link, short	718 mm	5635 daN	6315 daN
	Lower link, medium	675 mm	6315 daN	6765 daN
	Lower link, long			
Front	695 mm (220 mm to 915 mm)	3305 daN	4075 daN	

Explanatory notes on tractor test at:
www.traktorentest.ch



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