

# Torque Converter Transmissions Synchro Shuttle

MAIN TECHNICAL DATA	TCB56 2WD	TCB80 2WD	TCB80 4WD
Power Rating	55 kW @ 2,200 rpm	82 kW @ 2,200 rpm	82 kW @ 2,200 rpm
Max input Torque	600 Nm	750 Nm	750 Nm
Max input speed	2,420 rpm	2,400 rpm	2,400 rpm
Internal Pump Type	Gerotor	Gear	Gear
Engine Flywheel Interface	SAE 3	SAE 3	SAE 3
Output Flange Type	Yoke 1410	Yoke 1410	Yoke 1410
2WD output drop from Engine	180 mm	180 mm	180 mm
4WD output drop from Engine	-	-	323 mm
Vehicle Pump Interface	SAE C	SAE C	SAE C
Torque Converter Size	W280	W300	W300
Speed Gear	3 Fwd + 3 Rev	4 Fwd + 4 Rev	4 Fwd + 4 Rev
Fwd/Rev Ratios Option	1:1	1:1 / 1:0.829	1:1 / 1:0.829
Fwd Speed Gear Ratios	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup>	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup>	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup>
	4.62:1    2.73:1    0.87:1	5.603:1    3.481:1    1.585:1    0.793:1	5.603:1    3.481:1    1.585:1    0.793:1
MFD Ratio Options	-	-	0.8:1 / 0.818:1 / 0.895:1
Electronic Control	No	No	No
Reverser	Power Reverse	Power Reverse	Power Reverse
Gear Shifting	Synchro Shuttle	Synchro Shuttle	Synchro Shuttle
Direct Drive	Yes	Yes	Yes
MFD Connection Options	-	-	SAHR Dog Clutch / SAHR Collar Shift / Positive Clutch
Parking Brake Options	-	None / SAHR Wet Discs / Manual Wet Discs	None / SAHR Wet Discs / Manual Wet Discs
Spin-On Oil Filter Options	Vertical	Horizontal / Vertical / Remote	Horizontal / Vertical / Remote
Electric System Voltage	12V	12V	12V
Differential Lock Solenoid	None	On Control Valve Assy	On Control Valve Assy
Power Brake in/out Ports	18 bar nom.	15 bar nom.	15 bar nom.
Speed Sensor	Option	Available	Available
Temperature Sensor	Option	Available	Available
Pressure Sensor	N/A	Available	Available
Electrical Harness	N/A	N/A	N/A

All specifications can be subject to changes without prior advice by Carraro



# Torque Converter Transmissions Power Synchro

MAIN TECHNICAL DATA	TCB80 SPS 4WD	TCB80 SPS Coaxial
Power Rating	82 kW @ 2,200 rpm	82 kW @ 2,200 rpm
Max input Torque	750 Nm	750 Nm
Max input speed	2,400 rpm	2,400 rpm
Internal Pump Type	Gear	Gear
Engine Flywheel Interface	SAE 3	SAE 3
Output Flange Type	Yoke 1410	Yoke 1410
2WD output drop from Engine	180 mm	180 mm
4WD output drop from Engine	323 mm	334 mm
Vehicle Pump Interface	SAE C	SAE C
Torque Converter Size	W300	W300
Speed Gear	4 Fwd + 4 Rev	4 Fwd + 4 Rev
Fwd/Rev Ratios Option	1:1 / 1:0.829	1:1 / 1:0.829
FWD Speed Gear Ratios	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5.603:1   3.481:1   1.585:1   0.793:1	1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup> 5.603:1   3.481:1   1.585:1   0.793:1
MFD Ratio Options	0.8:1 / 0.818:1 / 0.895:1	1:1
Electronic Control	Yes	Yes
Reverser	Power Reverse	Power Reverse
Gear Shifting	Servo Power Synchro	Servo Power Synchro
Direct Drive	Yes	Yes
MFD Connection Options	SAHR Dog Clutch / SAHR Collar Shift SAHR Wet Clutch / Positive Clutch	Permanent / SAHR Dog Clutch SAHR Collar Shift / SAHR Wet Clutch
Parking Brake Options	None / SAHR Wet Discs / Manual Wet Discs	None / SAHR Wet Discs / Manual Wet Discs
Spin-On Oil Filter Options	Vertical / Remote	Vertical / Remote
Electric System Voltage	12V	12V
Differential Lock Solenoid	On Control Valve Assy	On Control Valve Assy
Power Brake in/out Ports	15 bar nom.	15 bar nom.
Speed Sensor	Yes	Yes
Temperature Sensor	Yes	Yes
Pressure Sensor	Yes	Yes
Electrical Harness	Available	Available

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# Torque Converter Transmissions Power Shift

MAIN TECHNICAL DATA	TCB90 PS 4WD	TCB90 PS Coaxial						
Power Rating	82 kW @ 2,200 rpm	82 kW @ 2,200 rpm						
Max input Torque	750 Nm	750 Nm						
Max input speed	2,400 rpm	2,400 rpm						
Internal Pump Type	Gear	Gear						
Engine Flywheel Interface	SAE 3	SAE 3						
Output Flange Type	Yoke 1410	Yoke 1410						
2WD output drop from Engine	188 mm	188 mm						
4WD output drop from Engine	350 mm	350 mm						
Vehicle Pump Interface	SAE C	SAE C						
Torque Converter Size	W300	W300						
Speed Gear	4 Fwd + 4 Rev	4 Fwd + 4 Rev						
Fwd/Rev Ratios Option	1:1 / 1:0.829	1:1 / 1:0.829						
FWD Speed Gear Ratios	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
	5.533:1	3.359:1	1.533:1	0.811:1	4.426:1	2.687:1	1.226:1	0.649:1
MFD Ratio Options	0.804:1	1:1						
Electronic Control	Yes	Yes						
Reverser	Power Reverse	Power Reverse						
Gear Shifting	Power Shift	Power Shift						
Direct Drive	Yes	Yes						
MFD Connection Options	SAHR Wet Clutch	Permanent / SAHR Wet Clutch						
Parking Brake Options	None / SAHR Wet Discs / Manual Wet Discs	None / SAHR Wet Discs / Manual Wet Discs						
Spin-On Oil Filter Options	Horizontal / Vertical / Remote	Horizontal / Vertical / Remote						
Electric System Voltage	12V	12V						
Differential Lock Solenoid	On Control Valve Assy	On Control Valve Assy						
Power Brake in/out Ports	15 bar nom.	15 bar nom.						
Speed Sensor	Yes	Yes						
Temperature Sensor	Yes	Yes						
Pressure Sensor	Yes	Yes						
Electrical Harness	Available	Available						

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