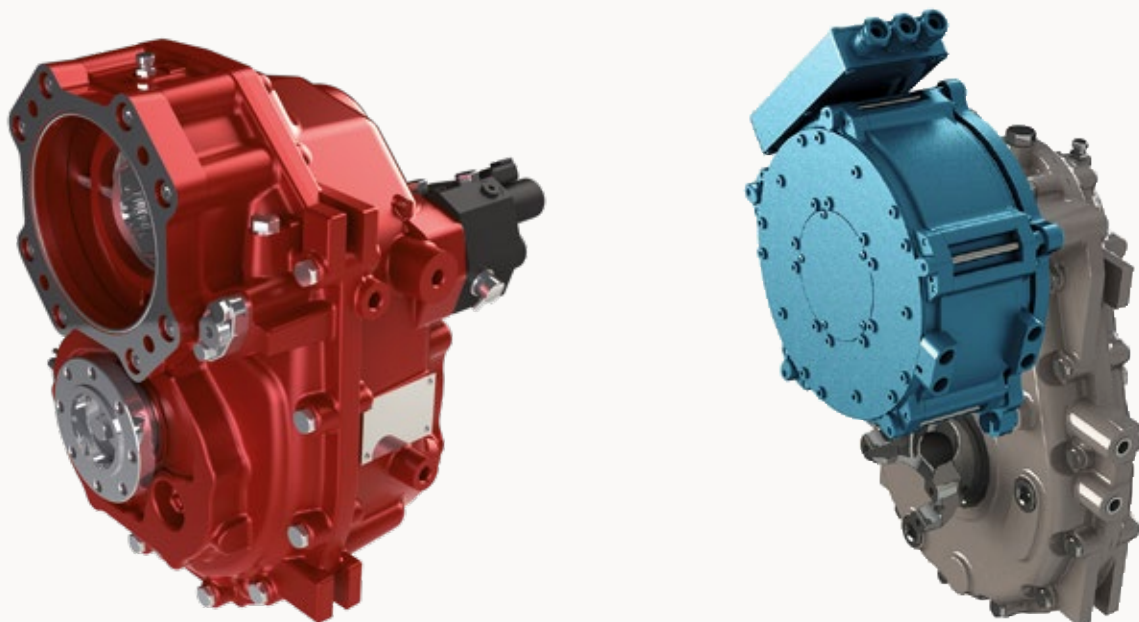


TRANSMISSIONS — TELESCOPIC HANDLERS

MODEL		TB135 C	TB172 C	eTB220 C	TB172-2 C Stop&Go	TB172/2 C Servo Power Synchro	FLS 3.2 Powershift	
Description		Single speed Single Motor Gearbox	Single speed Single Motor Gearbox	Single Speed Three-axis Gearbox	Dual Speed Single Motor Gearbox	Dual Speed Single Motor Gearbox	Dual Speed Single Motor Gearbox	
Motor Size	cc	up 60	80–160	80–107	80–160	80–160	80–110	
Max Input torque	Nm	450	1020	450	1020	1020	800	
Max Input speed	rpm	6000	5500	8000	5500	5500	5500	
In/Out Centerline distance	mm	135	172	220	172	172	185	
Output Interfaces		DIN 100	DIN 1410	DIN 1410	DIN 1410	DIN 13010/1410	DIN 13010/1410	
			END YOKE 1410/1480	END YOKE 1410/1480	END YOKE 1410/1480	END YOKE 1410/1480	END YOKE 1410/1480	
Reduction ratios		Single Ratio	Single Ratio	Single Ratio	1 st	2 nd	1 st	2 nd
		2.30	1.55	4.8÷6.65	2.97	1.08	2.97	1.08
		1.85	2.02		3.29	1.24	3.29	1.24
		3.00	2.46		4.29	1.36	4.29	1.36
			2.75			1.45		1.45
			2.97					
			3.19					
Speed Shifting					Shift On / Stand Still	Shift on Motion	Powershift proportional valve control	



SIDE DRIVE		TCH90				
*Power rating		kW	110			
Max input torque		Nm	830			
Rated engine speed		rpm	2400			
Maximum input speed		rpm	2640			
Charge pump type			Gerotor			
Engine flywheel interface			SAE 3			
Output flange type			Yoke 1410 / Yoke 1480			
Output axis position from engine	Off-set	mm	656.5			
	Drop	mm	226.5			
PTO pump interface			SAE B - 2bolts / SAE C - 4 bolts			
PTO torque		Nm	300			
Torque converter size		in	11" (12" optional)			
Speed gear			4Fwd + 3Rev		6Fwd + 3Rev	
Fwd speed gear ratio	xx:1	1	3.59	4.95	3.59	4.95
		2	1.66	2.29	2.54	3.50
		3	0.84	1.16	1.66	2.29
		4	0.60	0.82	1.18	1.62
		5	—	—	0.84	1.16
		6	—	—	0.60	0.82
Rev speed gear ratio	xx:1	1	3.60	4.97	3.60	4.97
		2	1.67	2.30	1.67	2.30
		3	0.84	1.17	0.84	1.17
4WD ratio	xx:1		1:1			
Shifting control			ECU (electro-hydraulic option for 4Fwd + 3Rev)			
Reverser			Power reverser			
Gear shifting			Power-Shift			
Clutches modulations			ECU modulation (Mech-hydr. option for 4Fwd + 3Rev)			
Gears			Helical			
MFD connection			Permanent			
Parking brake option			None			
Spin-on filter option			Vertical / Horizontal / Remote			
Electric system voltage		V	12			
Rear axle differential lock solenoid			None			
Power brake in/out ports		bar	16 nominal			
Inching			Option			
TC Lock-Up			Direct Drive Option			
Speed sensor			Included			
Temperature sensor			Included			
Pressure switch			Included			
ECU			Yes (Optional for 4Fwd + 3Rev)			
Electric harness			Option			



TRANSMISSIONS — TELESCOPIC HANDLERS

CENTER DRIVE	TCB80 Coaxial				TCB80 SPS Coaxial				TCB90 PS Coaxial			
Power Rating	82 kW @ 2,200 rpm				82 kW @ 2,200 rpm				90 kW @ 2,200 rpm			
Max input Torque	750 Nm				750 Nm				750 Nm			
Max input speed	2,400 rpm				2,400 rpm				2,400 rpm			
Internal Pump Type	Gear				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	325 mm				325 mm				350 mm			
4WD output drop from Engine	335 mm				335 mm				350 mm			
Vehicle Pump Interface	SAE C				SAE C				SAE C			
Torque Converter Size	W300				W300				W300			
Speed Gear	4 Fwd + 4 Rev				4 Fwd + 4 Rev				4 Fwd + 4 Rev			
Fwd/Rev Ratios Option	1:1 / 1:0.829				1:1 / 1:0.829				1:1 / 1:0.829			
Fwd Speed Gear Ratios	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th	1 st	2 nd	3 rd	4 th
	5.603:1	3.481:1	1.585:1	0.793:1	5.603:1	3.481:1	1.585:1	0.793:1	4.426:1	2.687:1	1.226:1	0.649:1
MFD Ratio Options	1:1				1:1				1:1			
Electronic Control	No				Yes				Yes			
Reverser	Power Reverse				Power Reverse				Power Reverse			
Gear Shifting	Synchro Shuttle				Servo Power Synchro				Power Shift			
Direct Drive Option	Yes				Yes				Yes			
MFD Connection Options	SAHR Dog Clutch / SAHR Collar Shift / Positive Clutch				Permanent / SAHR Dog Clutch SAHR Collar Shift / SAHR Wet Clutch				Permanent / SAHR Wet Clutch			
Parking Brake Options	None / SAHR Wet Discs / Manual Wet Discs				None / SAHR Wet Discs / Manual Wet Discs				None / SAHR Wet Discs / Manual Wet Discs			
Spin-On Oil Filter Options	Vertical / Remote				Vertical / Remote				Horizontal / Vertical / Remote			
Electric System Voltage	12V				12V				12V			
Differential Lock Solenoid	On Control Valve Assy				On Control Valve Assy				On Control Valve Assy			
Power Brake in/out Ports	15 bar nom.				15 bar nom.				15 bar nom.			
Speed Sensor	Available				Yes				Yes			
Temperature Sensor	Available				Yes				Yes			
Pressure Sensor	Available				Yes				Yes			
Electrical Harness	N/A				Available				Available			

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

