CEBM003100

SHOP MANUAL

KOMATSU®

D32E-1,P-1
D38E-1,P-1
D39E-1,P-1

CRAWLER TRACTOR

SERIAL NUMBERS	D32E-1,P-1	P075718 and up
	D38E-1,P-1	P085799 and up
	D39E-1,P-1	P095872 and up

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GRADE 5 AND 8 NON-PHOSPHATE COATED HARDWARE

Recommended torque for all Standard Application Nuts and Bolts, provided; all thread surfaces are clean and lubricated with SAE-30 engine oil or joints are rigid, that is, no gaskets or compressible materials are used. When reusing nuts or bolts, use minimum torque values.

THREAD	GRADE 5	
	N•m	lbf ft
1/4NC	8	6
1/4NF	9	7
5/16NC	18	13
5/16NF	20	15
3/8NC	33	24
3/8NF	37	27
7/16NC	52	38
7/16NF	57	42
1/2NC	79	58
1/2NF	88	65
9/16NC	114	84
9/16NF	126	93
5/8NC	156	115
5/8NF	175	130
3/4NC	278	205
3/4NF	312	240
7/8NC	414	305
7/8NF	454	334
1NC	617	455
1NF	691	510
1-1/8NC	827	610
1-1/8NF	929	685
1-1/4NC	1166	860
1-1/4NF	1295	955
1-3/8NC	1532	1130
1-3/8NF	1749	1290
1-1/2NC	2034	1400
1-1/2NF	2291	1690
1-3/4NC	3213	2370
2NC	4813	3550

THREAD	GRADE 8	
	N•m	lbf ft
1/4NC	12	9
1/4NF	15	11
5/16NC	24	18
5/16NF	28	21
3/8NC	46	34
3/8NF	52	38
7/16NC	73	54
7/16NF	81	60
1/2NC	111	82
1/2NF	122	90
9/16NC	163	120
9/16NF	179	132
5/8NC	224	165
5/8NF	251	185
3/4NC	393	290
3/4NF	434	320
7/8NC	617	455
7/8NF	698	515
1NC	942	695
1NF	1064	785
1-1/8NC	1342	990
1-1/8NF	1505	1110
1-1/4NC	1898	1400
1-1/4NF	2102	1550
1-3/8NC	2481	1830
1-3/8NF	2827	2085
1-1/2NC	3295	2430
1-1/2NF	3701	2730
1-3/4NC	5166	3810
2NC	7810	5760

Multiply the standard torque by 0.65 when finished jam nuts are used, 0.7 when Molykote, white lead or similar mixture are used as lubricants, 0.75 when parkerized bolts or nuts are used, 0.85 when cadmium plated bolts or nuts and zinc bolts w/waxed zinc nuts are used or 0.9 when hardened surfaces are used under the nut or bolt head. The General Torque must be used in all cases where SPECIAL TORQUES are not given. Values listed in this manual are lubricated (wet) threads; values should be increased 1/3 for non-lubricated (dry) threads.

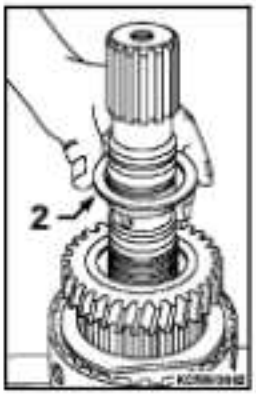
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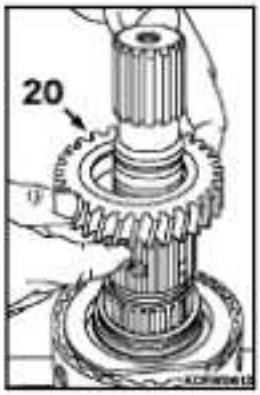
D32E-1, D32P-1 SPECIFICATIONS

			D32E-1	D32P-1
WEIGHT				
• Operating weight w/o operator			7133 kg (15725 lbs)	7782 kg (17155 lbs)
BLADE				
• Equipment weight (including cylinders)			1173 kg (2586 lbs)	1245 kg (2744 lbs)
• Blade capacity			1.2 m^3 (1.6 yd^3)	1.45 m^3 (1.9 yd^3)
PERFORMANCE				
• Travel speeds	Forward	1st	3.6 km/h (2.2 mph)	
		2nd	6.0 km/h (3.7 mph)	
		3rd	9.3 km/h (5.8 mph)	
	Reverse	1st	4.3 km/h (2.7 mph)	
		2nd	6.5 km/h (4.1 mph)	
		3rd	11.2 km/h (7.0 mph)	
• Maximum drawbar pull			11681 kg (25751 lbs)	
• Ground pressure			0.51 kg/cm^2 (7.3 psi)	0.31 kg/cm^2 (4.4 psi)
ENGINE				
• Model			Komatsu 4D102E-1 Diesel Engine	
• Flywheel horsepower			52 kW (70 hp) @ 2500 RPM	
• Maximum torque			268 N•m (198 lbf ft) @ 1200 RPM	
• Starting motor			2.7 kW (12V)	
• Alternator			2.7 kW (12V) @ 65A	
• Battery			2.7 kW (12V) @ 700 CCA	

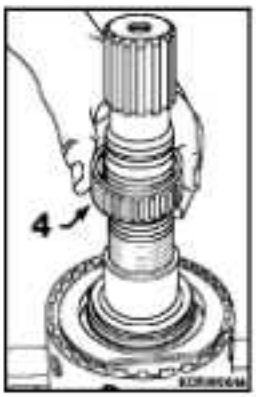
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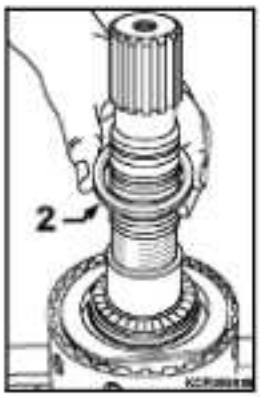
7. Remove inner thrust race (2).
8. Remove reverse gear and hub (20) from directional (input) shaft.



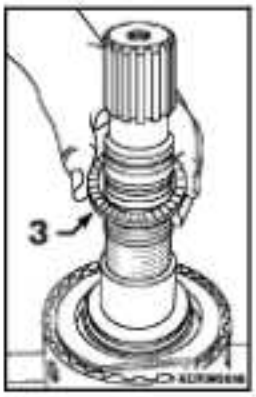


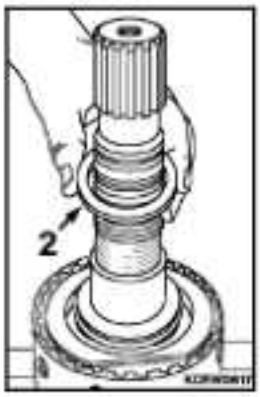
9. Remove needle bearing (4).
10. Remove outer thrust race (2).



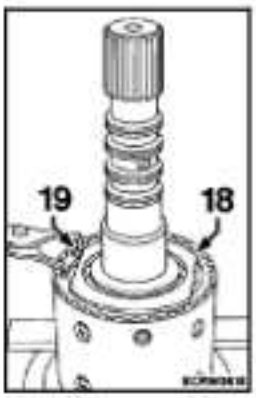


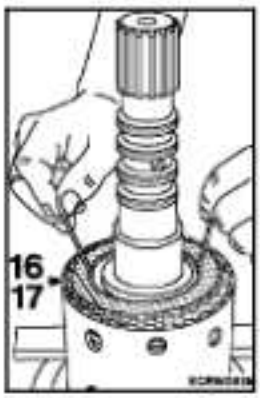
11. Remove thrust bearing (3).
12. Remove inner thrust race (2).





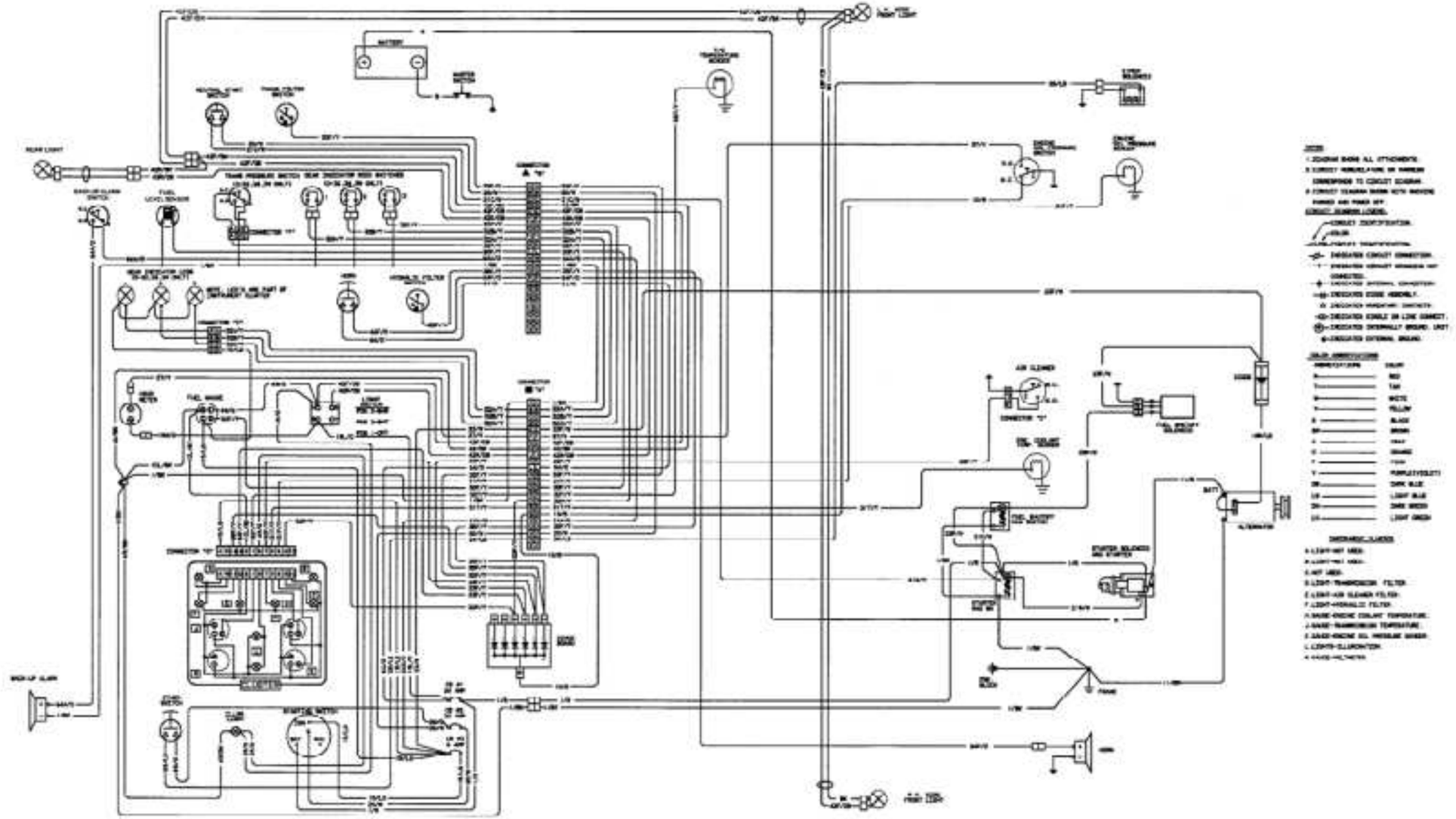
13. Using retaining ring pliers, retract captured retaining ring (19) and remove with support plate (18).
14. Remove friction discs (16) and separator plates (17).





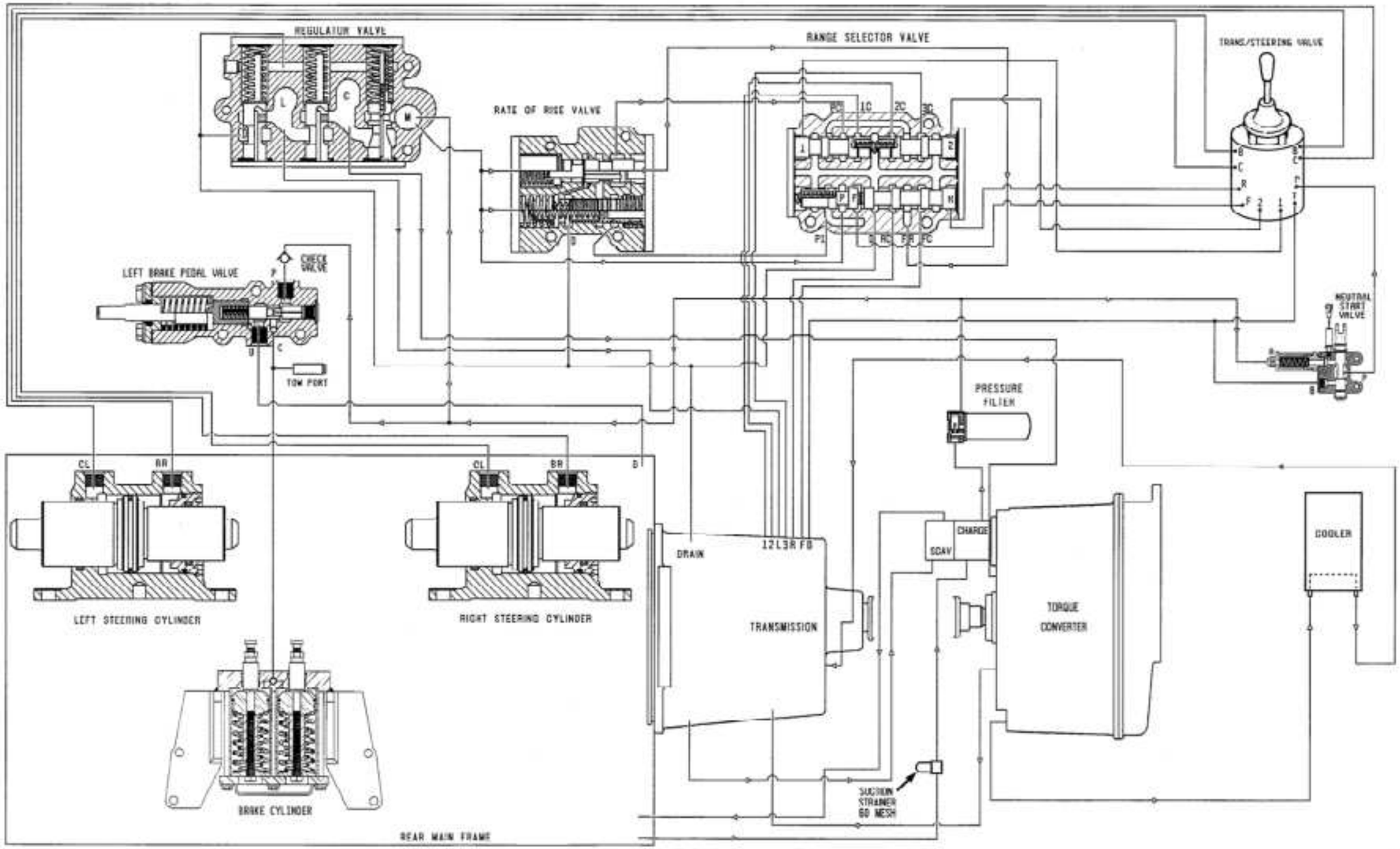
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WIRING DIAGRAM



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