SEBM01040604

SHOP MANUAL

KOMATSU®

D20A,P,S,Q-6
D21A,P,S,Q-6

MACHINE MODEL	SERIAL No.	MACHINE MODEL	SERIAL No.
D20A-6	60001 and up	D21A-6	60001 and up
D20P-6	60001 and up	D21E-6	60001 and up
D20P-6A	60001 and up	D21P-6	60001 and up
D20PL-6	60001 and up	D21P-6A	60001 and up
D20PLL-6	60001 and up	D21P-6B	60001 and up
D20S-6	60001 and up	D21PL-6	60001 and up
D20Q-6	60001 and up	D21S-6	60001 and up
		D21S-6A	60001 and up
		D21Q-6	60001 and up

- This shop manual may contain attachments and optional equipment that are not available in your area. Please consult your local Komatsu distributor for those items you may require.
  Materials and specifications are subject to change without notice.
- D20, 21-6 mount the 4D95S-W-1 engine.
  For details of the engine, see the 95 Series Engine Shop Manual.

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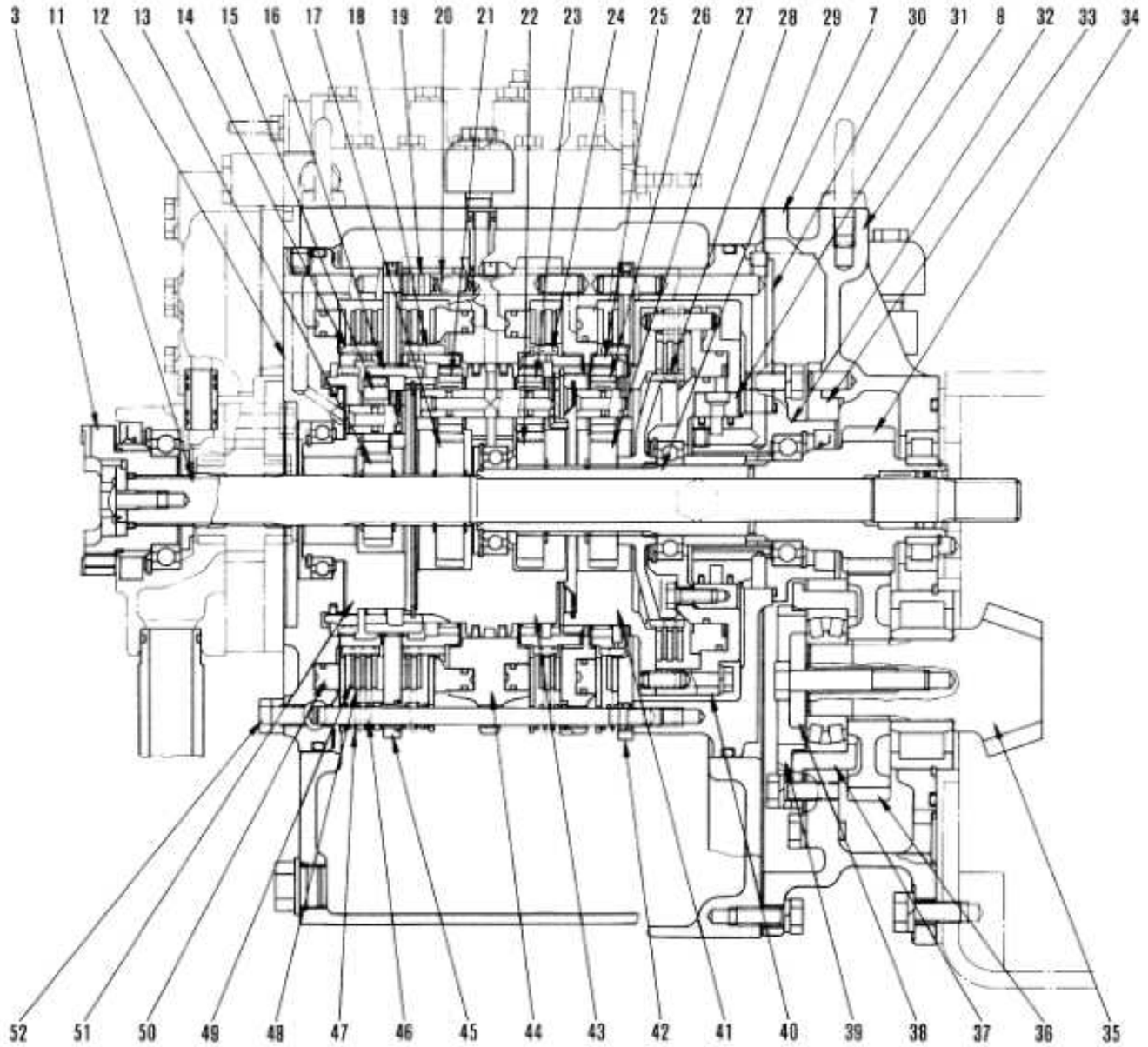
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11. Input shaft
12. No.1 clutch housing
13. No.1 sun gear (24 teeth)
14. No.1 ring gear (72 teeth)
15. No.1 planet gear (21 teeth)
16. No.1 ring gear (66 teeth)
17. No.2 sun gear (36 teeth)
18. No.2 ring gear (72 teeth)
19. Transmission lubrication valve
20. Valve spring
21. No.2 planet gear (18 teeth)
22. No.3 sun gear (36 teeth)
23. No.3 planet gear (18 teeth)
24. No.3 ring gear (72 teeth)
25. No.4 ring gear (72 teeth)
26. No.4 planet gear (18 teeth)
27. No.4 sun gear (36 teeth)
28. No.5 ring gear
29. Output shaft
30. No.5 clutch housing
31. Seat
32. Cage
33. Plate
34. Transfer drive gear (21 teeth)
35. Pinion shaft (14 teeth)
36. Transfer driven gear (37 teeth)
37. Bearing cage
38. Retainer
39. Retainer
40. No.5 piston housing
41. No.4 carrier
42. Plate
43. No.2 and No.3 carrier
44. No.2 and No.3 clutch housing
45. Plate
46. Tie rod pin
47. Clutch spring
48. Clutch plate
49. Clutch disc
50. Clutch piston
51. No.1 carrier
52. Tie rod bolt

OUTLINE

The D21E-6, D21P-6B and D21S-6A bulldozer is equipped with a planetary type, "3-forward and 3-reverse speed" transmission which is a combined structure of a planetary gear mechanism and disc clutches.

The rotational direction and the revolution of the transmission output shaft is selected by fixing two disc clutches out of five disc clutches by means of control valve operation.

No.1 clutch is fixed in reverse, No.2 clutch in forward, No.3 clutch in third speed, No.4 clutch in second speed, and No.5 clutch in first speed.

Any speed can by selected from three forward speeds and three reverse speeds by fixing either No.1 or No.2 clutch and one clutch amoung No.3, No.4, and No.5 clutches and by combining two of the above.

Speeds and operating clutches

Speed		Operating clutch
Forward	Neutral	No.5 clutch
	First speed	No.2 and No.5 clutches
	Second speed	No.2 and No.4 clutches
	Third speed	No.2 and No.3 clutches
Reverse	Neutral	No.5 clutch
	First speed	No.1 and No.5 clutches
	Second speed	No.1 and No.4 clutches
	Third speed	No.1 and No.3 clutches

Number of discs and plates on each clutch

Clutch No.	Number of discs	Number of plates
No.1 clutch	3	3
No.2 clutch	2	2
No.3 clutch	2	2
No.4 clutch	1	1
No.5 clutch	2	3

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