SEBM01141805

SHOP MANUAL

KOMATSU®

D31E,P,PL,PLL-18
D31P-18A
D31S,Q-18
D37E,P-2

MACHINE MODEL	SERIAL No.	MACHINE MODEL	SERIAL No.
D31E-18	40001 and up	D31S-18	40001 and up
D31P-18	40001 and up	D31Q-18	40001 and up
D31P-18A	40001 and up	D37E-2	1501 and up
D31PL-18	40001 and up	D37P-2	1501 and up
D31PLL-18	40001 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.
- D31-18 and D37-2 mount the 6D95L and S6D95L engine.
  For details of the engine, see the 95 Series Engine Shop Manual.

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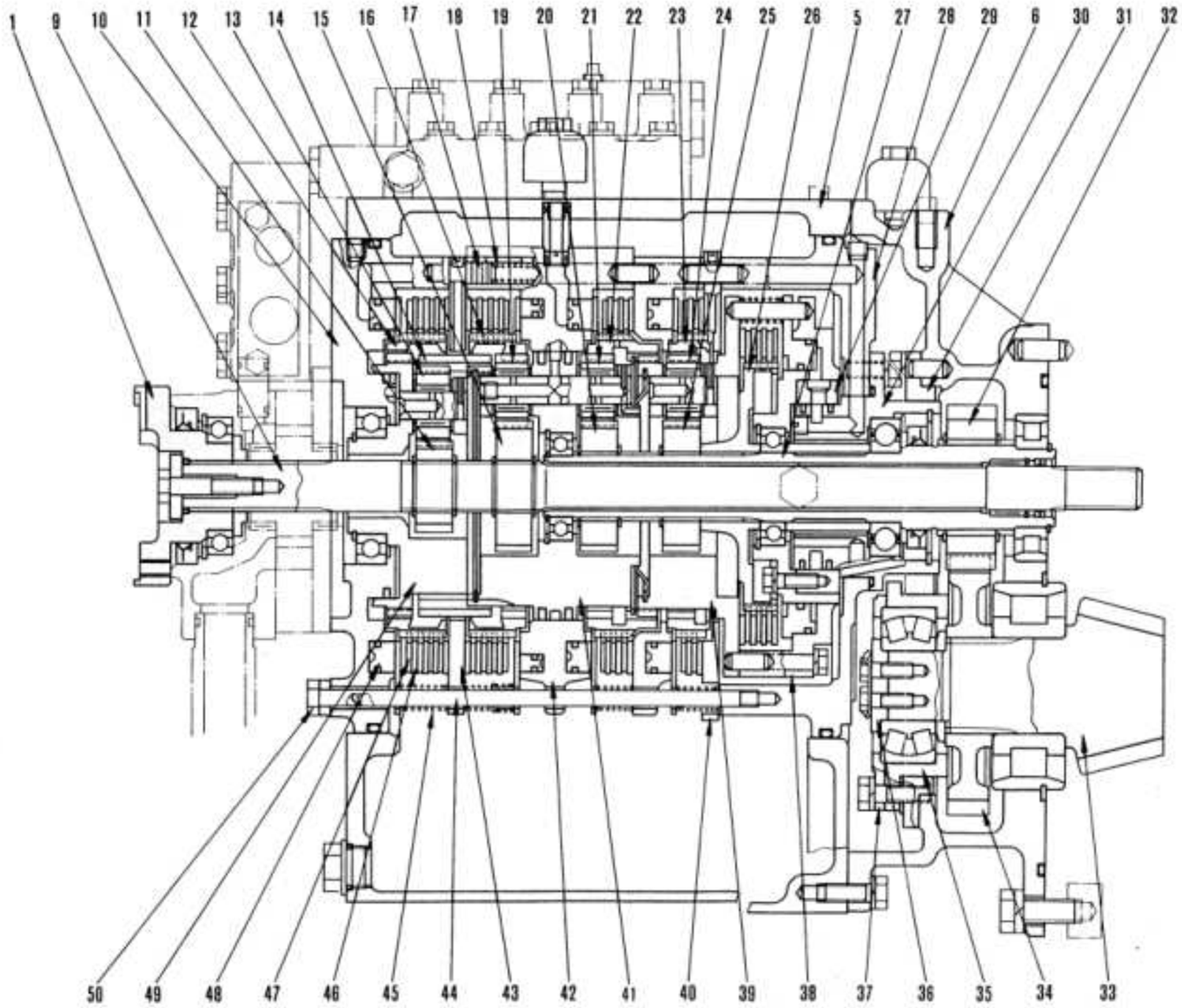
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9. Input shaft
10. No.1 clutch housing
11. No.1 sun gear (24 teeth)
12. No.1 ring gear (72 teeth)
13. No.1 planet gear (21 teeth)
14. No.1 ring gear (66 teeth)
15. No.2 sun gear (36 teeth)
16. No.2 ring gear (72 teeth)
17. Transmission lubrication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

OUTLINE

The D31-18 and D37-2 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	4	4
No.2 clutch	4	4
No.3 clutch	3	3
No.4 clutch	2	2
No.5 clutch	3	4

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