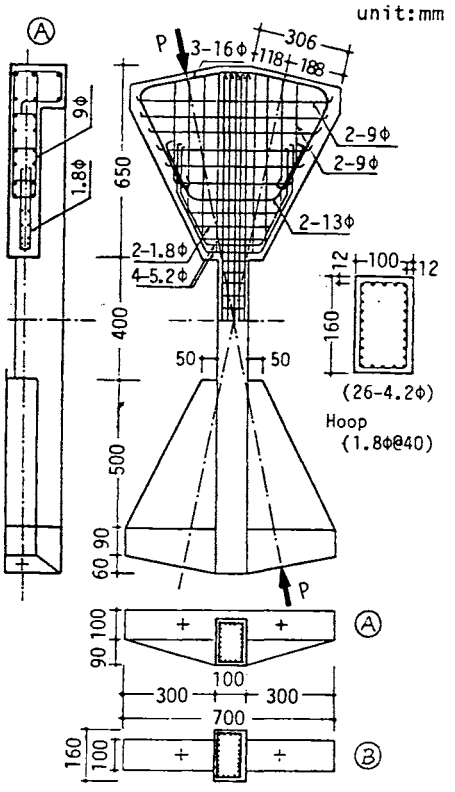


Fig. 7a--Details of test specimens

Fig. 7--K. Ohno and T. Shibata's study

Name of specimen	Distance of eccentricity				Loading
	e_x (cm)	e_x/D	e_Y (cm)	e_Y/D	
0.2AS 0.2AR	±6	0.375	4	0.40	monotonic reversal
0.2BS 0.2BR	0	0	4	0.40	monotonic reversal
0 AS	±6	0.375	0	0	monotonic

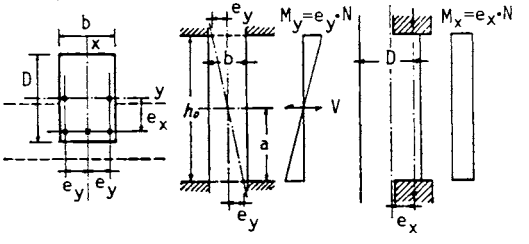


Fig. 7b--Design variables

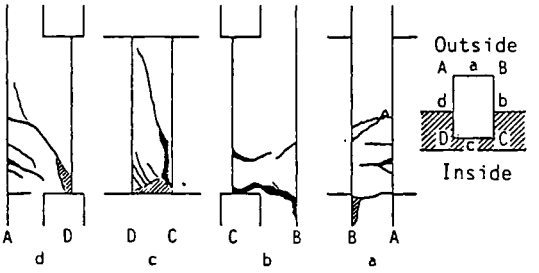


Fig. 7c--Typical cracks

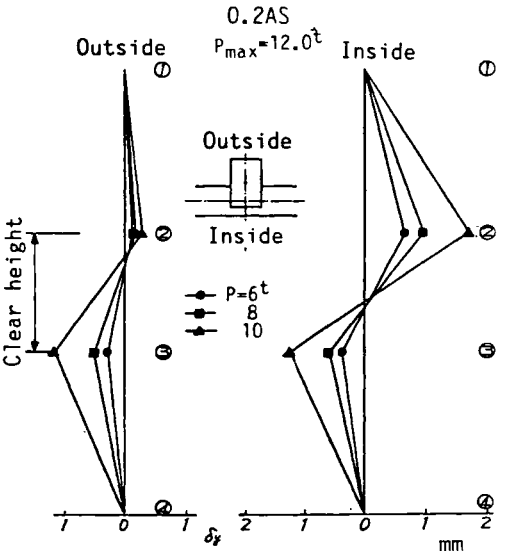


Fig. 7d--Example of deformation

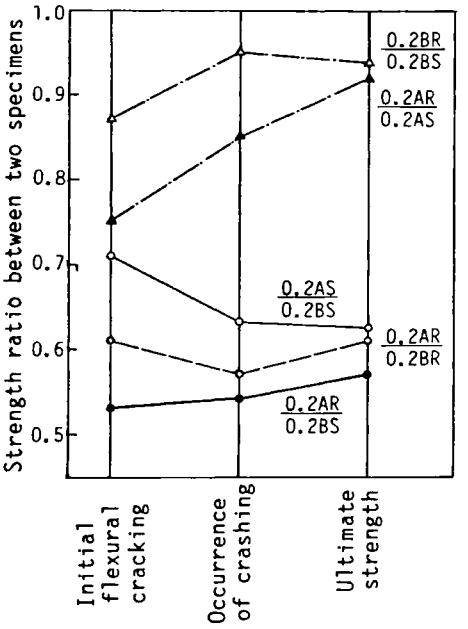


Fig. 7e--Comparison of strength

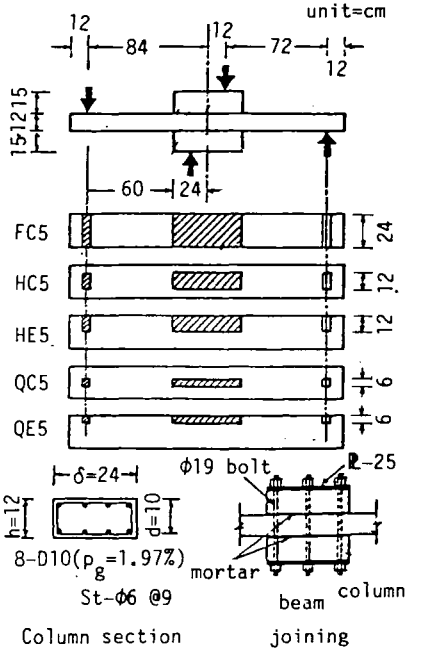


Fig. 8--S. Morita's study

Fig. 8a--Configurations of specimens

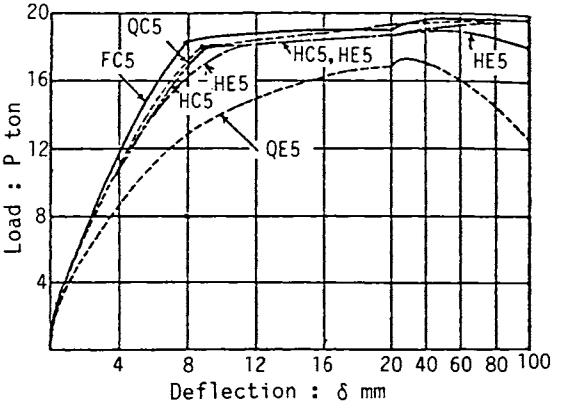


Fig. 8b--Load-deflection curves

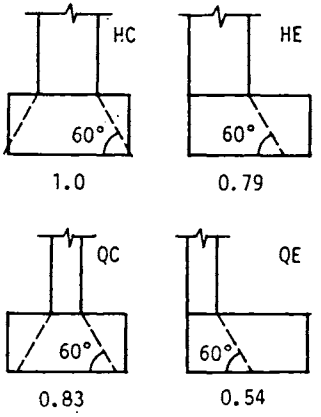


Fig. 8c--Assumption of effective section

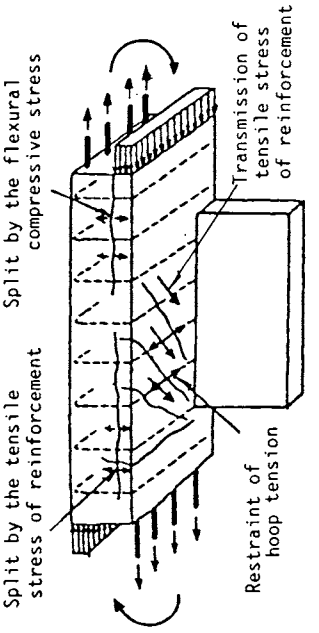
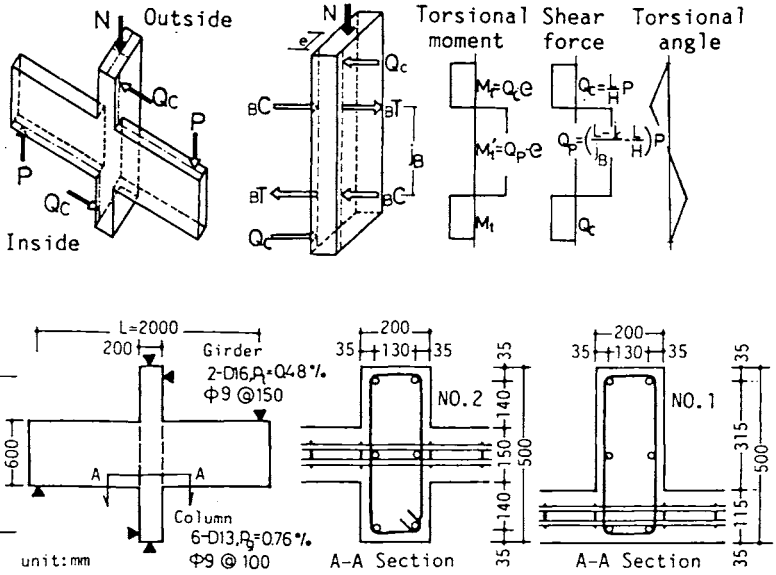


Fig. 8d--Stress transmission mechanism in specimen QE5



	Eccentricity		f'c kgf/cm²	Reinforcement		
	exist.	non		Column	Beam	Joint
Specimens	NO.1	NO.2	198	6-D13, □-9φ@100	2-D16 □-9φ @150	□-9φ @150
	NO.3	NO.4	139	10-D13, □-9φ@100		
	NO.5	NO.6	242			
	NO.8	—	231	10-D13, □-9φ@50		
	NO.7	—	242			non

Fig. 9a--Details of specimens and design variables

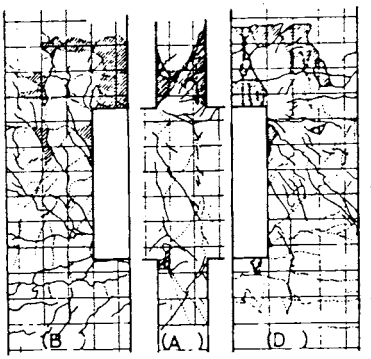


Fig. 9b--Crack patterns

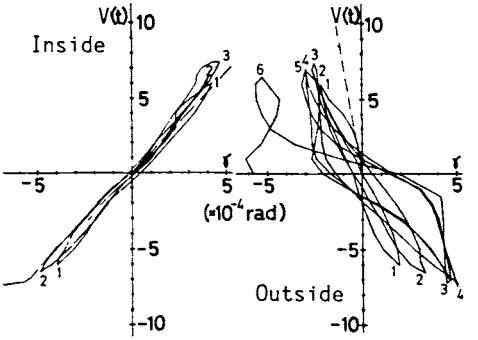


Fig. 9c--Beam shear versus joint shear deformation of specimen No. 1

Fig. 9--H. Umemura, T. Hamada, and T. Kamimura's study

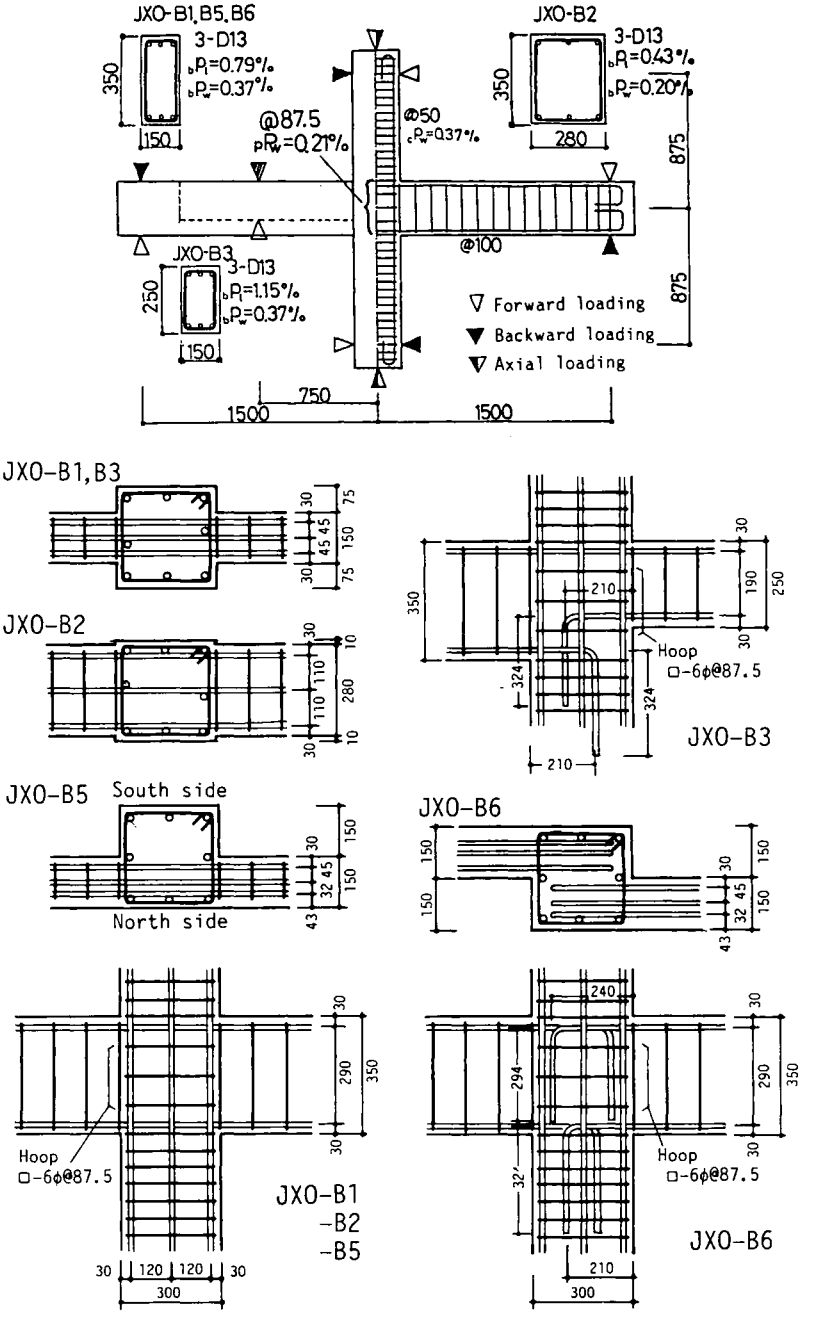


Fig. 10--Details of specimens

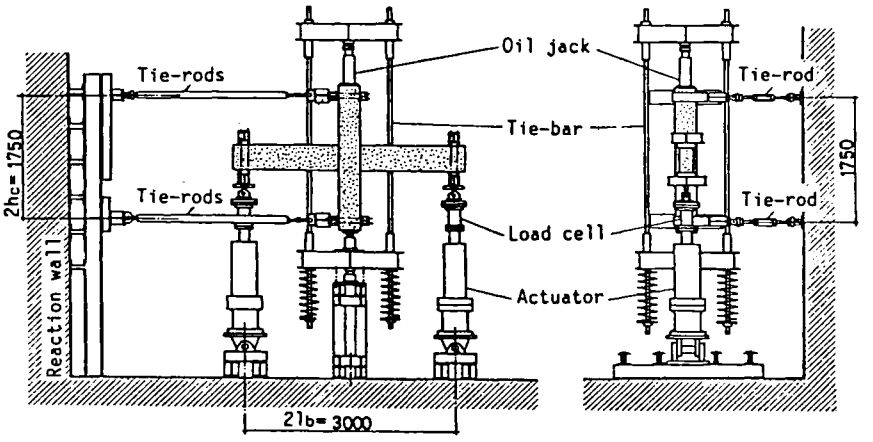


Fig. 11--Loading arrangement

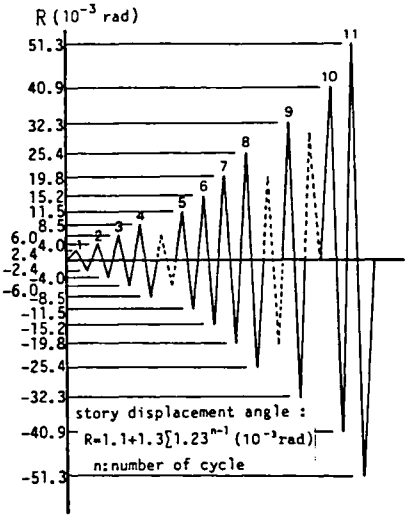


Fig. 12--Forced displacement history

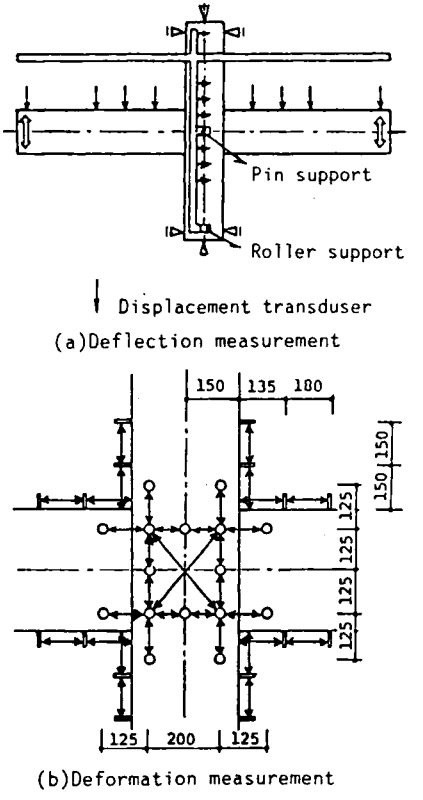


Fig. 13--Measurement of deformation

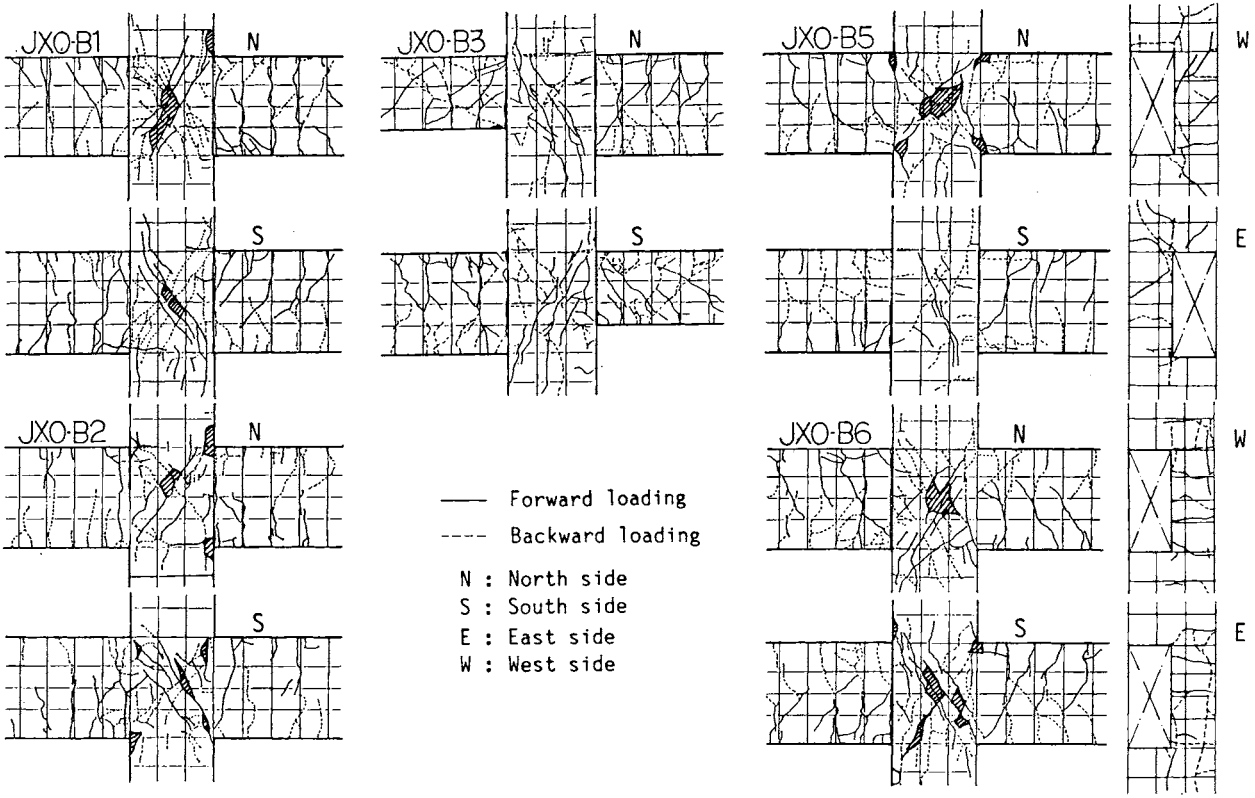


Fig. 14--Crack patterns at final stage

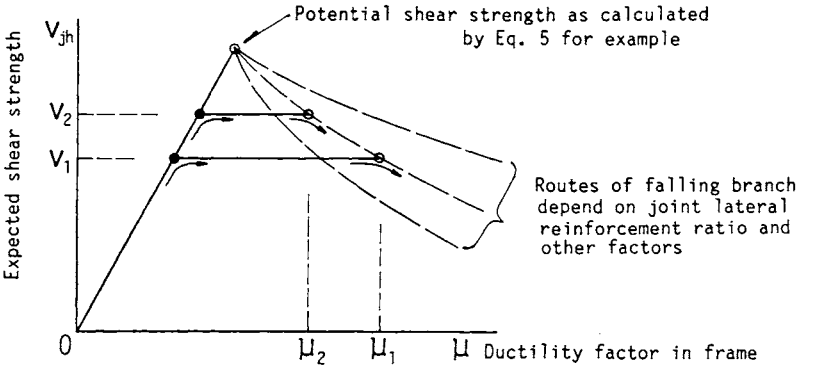


Fig. 15--Relationship between design joint-shear and required ductility

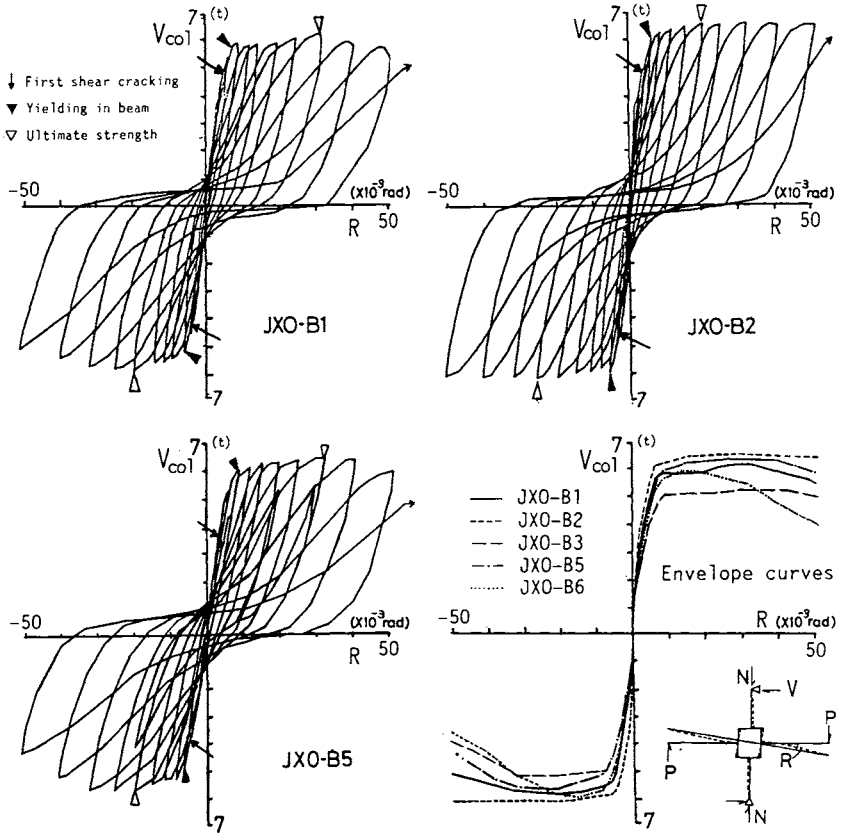


Fig. 16--Shear force versus story drift angle relationship

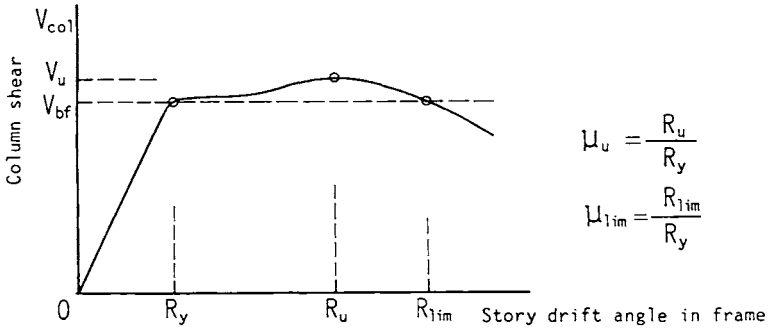


Fig. 17--Definition of ductility factors

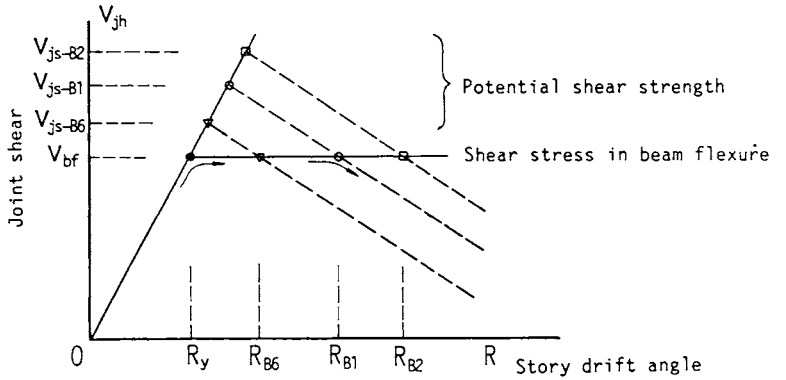


Fig. 18--Relation of joint shear strength and ductility factor

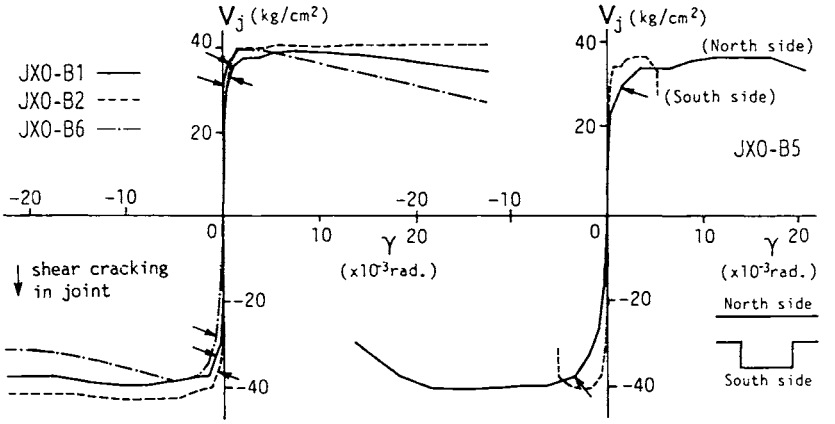


Fig. 19--Envelope curves of joint shear stress versus shear deformation angle