

# A-3 鋼連続箱桁橋の主桁の座屈

Buckling of continuous steel box girder



神P-240のせん断破壊 Damages on P-240



神P-239付近の被災状況 View of damages on P-239

■**損傷内容**／①神S-238～240の上部工(3径間連続RC床版箱桁橋)を支持するRC橋脚4本のうち、固定橋脚の神P-240にせん断破壊が生じた②神P-240の橋脚位置のスレおよび沈下が生じた③上部工が、中間橋脚の神P-239および神P-240に近い側径間で主桁に大きな座屈が発生

■**位置**／3号神戸線 神S-238～240(神戸市東灘区御影本町)

■**構造形式**／3径間連続RC床版箱桁橋

■**竣工時期**／昭和44年度

■**適用基準**／鋼道路橋設計・製作示方書(昭和39年)ほか

■**復旧方法**／軽量化を図るため、3径間連続鋼床版箱桁橋を新たに製作し、新設した

■**展示物紹介**／  
神S-238の主桁損傷(座屈)部

■**展示物諸元**

下フランジ(材質SM58、板厚13mm、20mm)

ウェブ(材質SM58、板厚12mm)

上フランジ(材質SM58、板厚12mm、19mm)

■**Damage descriptions**／①The pier P-240 with a fixed bearing failed in shear among the four reinforced concrete piers which were supported the superstructure of the spans S-238 to S-240 (3-span continuous box girders with reinforced concrete decks).②The pier P-240 moved and sank from its original position.

③A significant buckling occurred in the main girders of the end spans at the regions closer to the intermediate piers (P-239 and P-240).

■**Location**／ S-238 to S-240 on the Kobe Route #3 (Mikage Honmachi, Higashinada-ku, Kobe)

■**Structural configuration**／ 3-span continuous box girder bridge with reinforced concrete decks

■**Completion**／ 1969

■**Major standards applied**／ Design and Fabrication Specifications for Highway Steel Bridges (1964)

■**Restoration**／ A new 3-span continuous box girder bridge was built with steel decks in order to reduce the weight of the superstructure.

■**Descriptions of the exhibits**／ Damaged (buckling) portion of the main girder of S-238

■**Specifications of the exhibits**

Bottom flange (material: SM58; thickness: 13 mm and 20 mm)

Web (material: SM58; thickness: 12 mm)

Top flange (material: SM58; thickness: 12 mm and 19 mm)

