Kawakin Core-Tech Co., Ltd.

DRB Disk Rubber Bearing

Application range

Suitable for a variety of bridges including highway bridges and railway bridges

Function

- Supports vertical loads
- Accommodates horizontal movement and rotation
- Compact size that can be installed in small spaces



High Quality

- Applicable to cold regions
- Accurate quality control by rigorous performance tests
- A broad line-up of DRB bearings for supporting small to large vertical loads

Low cost and Size Line-up

Vertical load capacity up to 10,000 kN

High Durability

- Superior durability guaranteed by fatigue test
- High ozone resistance

Temporary Moving function of Fixed-Type Bearing

A fixed-type of DRBs can temporarily act as movable bearings during construction for a bridge with plural fixed supports.

Girder Expansion and Contraction due to temperature change in erection



Structure

DRB bearings are generally applicable to both fixed and movable supports. It is suitable for structures with multiple fixed supports. It is effective to support vertical loads at bearing configurations where vertical support and horizontal support are functionally separated. The following two types are available.

» Fixed Type



» Movable Type



Structure Details

» Cross-Section of the disk



Patent No.

Sliding Elastomeric Bearing for Construction (No.2849701)
Fixed Bridge Bearing (Published Application No.2008-133644)

Performance

Load bearing Performance

Capable of supporting a compressive load of 150N/mm² or more

Rotational Capability

Rotational capability and fatigue durability proven by rotational fatigue tests with test samples of complete bearings

Fatigue Resistance

Durable for more than 2,000,000e cycles

Material

Quality Control item	Standard	Unit	Standard*
Rate of change in stress at 25% elongation	JIS K 6257	%	-10 to +100
Elongation change	JIS K 6257	%	-50 or more
Compression set	JIS K 6262	%	35 or less
Ozone resistance	JIS K 6259	-	No visible cracks
Water resistance	JIS K 6258	%	10 or less
Cold temperature resistance	JIS K 6261	-	-30°C or less

*Conforming to the Manual for Bearings for Highway Bridges (issued in April 2004)

Urethane rubber is a generic term of elastomer that is generated by the reaction of polyisocyanate with active hydrogen compound. It has high hardness, elasticity, mechanical strength and abrasion resistance as well as aging, ozone, oil and solvent resistance.



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» Installation Image





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