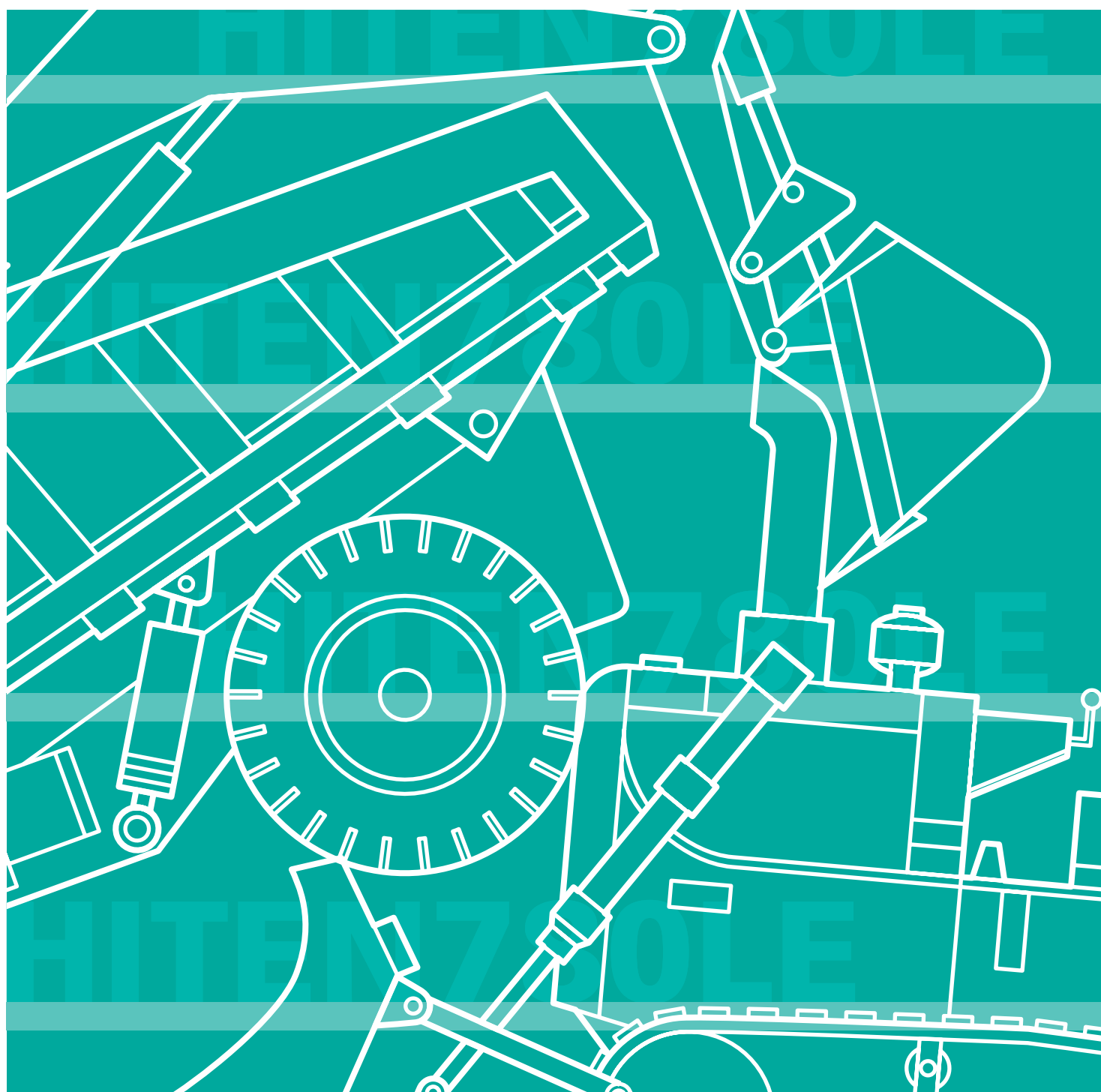




JFE-HITEN780LE

JFE's High Strength Steel Plates by
The Leading Edge of Production Technology

最先端技術による建設機械、産業機械用
高靱性・高溶接性780N/mm²級高張力鋼板



JFE Steel Corporation

What's New

JFE Steel, the pioneer of TMCP technology in the world, has succeeded in developing new high strength steel plates by the leading edge of technology, "Micro-alloying Technology and TMCP", and is pleased for customers to enjoy the new plates.

TMCP : Thermo-Mechanical Control Process



JFE-HITEN780LEはJFEスチールの“マイクロアロイング技術とTMCP技術”を適用することにより、低温靱性、溶接性を兼ね備えた、革新的な建設機械、産業機械用高張力鋼板です。

Guaranteed Low Temperature Toughness

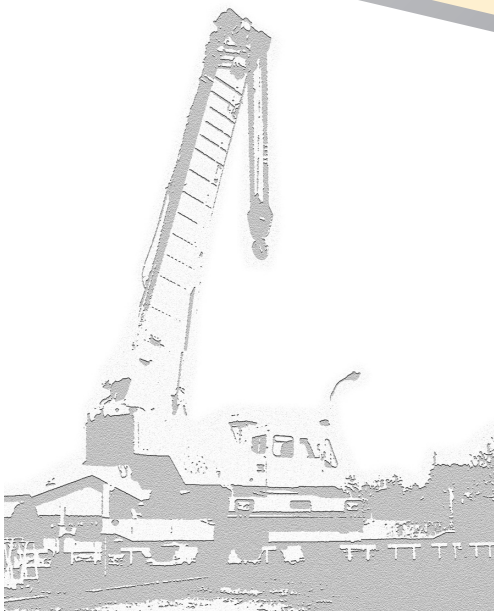
JFE Steel guarantees the absorbed energy of Charpy impact test at -40°C , then the plate shows not only high strength but also high toughness.

Excellent Weldability

Micro-alloying technology in combination with TMCP enables to reduce carbon equivalent, and then excellent weldability is given.

Excellent Formability

JFE-HITEN780LE shows excellent formability as the same level as conventional one.



低温靱性保証

JFE-HITEN780LEは -40°C のシャルピー衝撃試験値を保証しており、優れた低温靱性を有しています。

優れた溶接性

JFE-HITEN780LEは“マイクロアロイング技術とTMCP技術”を適用することにより炭素当量を低く抑え、優れた溶接性を有しています。

優れた加工性

JFE-HITEN780LEは従来のJFE-HITENシリーズ同様に、優れた加工性を有しています。

Specification & Typical Technical Properties 規格と性能例

Chemical Compositions 化学成分

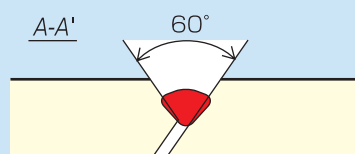
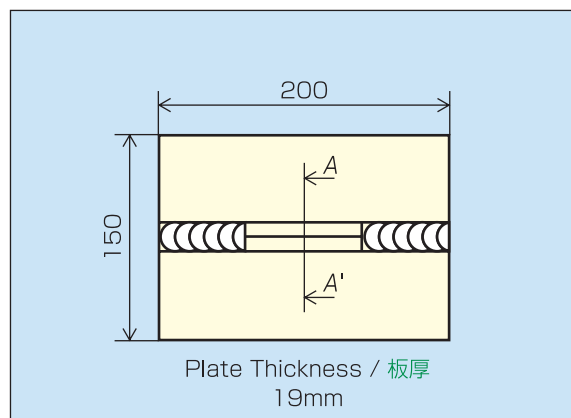
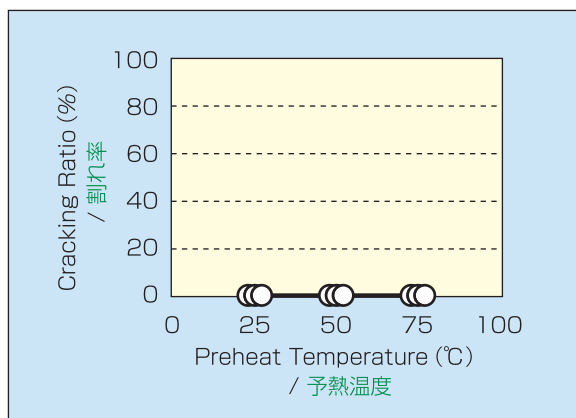
Item 項目		Typical Value 性能例	Specification 規格値	
Plate Thickness 板厚		25 mm	~19 mm	19.1~32 mm
Chemical Compositions 化学成分(%)	C	0.15	0.20 max.	
	Si	0.38	0.40 max.	
	Mn	1.18	1.40 max.	
	P	0.012	0.025 max.	
	S	0.002	0.015 max.	
	Cr	Micro-alloying adjustment	0.20 max.	
	Mo		0.15 max.	
	V		0.08 max.	
	B		0.005 max.	
	Ceq ¹⁾	0.39	0.40 max.	0.43 max.

Notes 1) Ceq = C+Mn/6+(Cu+Ni)/15+(Cr+Mo+V)/5
Other micro-alloying elements are added if necessary.

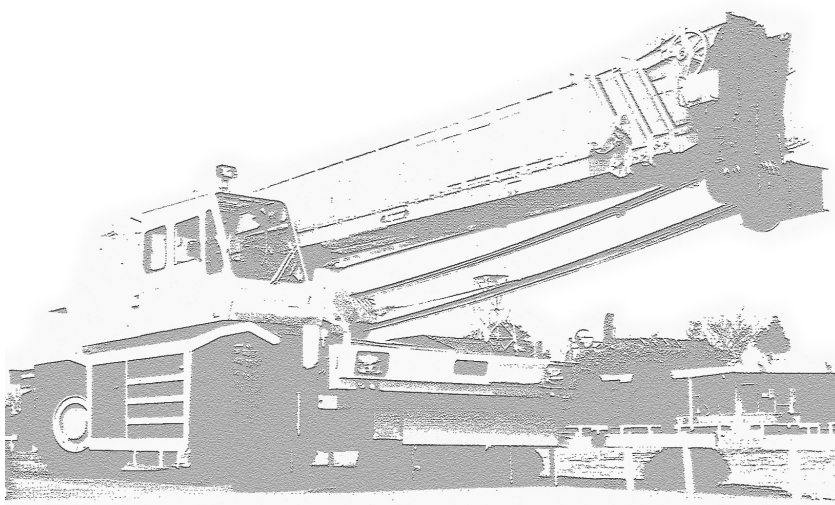
Mechanical properties 機械的特性

Item 項目		Typical Value 性能例	Specification 規格値
Plate Thickness 板厚		25 mm	6 ~ 32 mm
Tensile Property ¹⁾ 引張特性	Yield Strength 降伏強さ	777 N/mm ²	685 N/mm ² min.
	Tensile Strength 引張強さ	835 N/mm ²	780~930 N/mm ²
	Elongation 伸び	33 % ²⁾	16% min. (~16mm) ²⁾ 24% min. (16.1~32mm) ²⁾ 16% min. (20.1~32mm) ³⁾
Bending Property ⁴⁾ 曲げ特性	Specimen 試験片	Full thickness x25mm	Full thickness x25mm
	Bending Angle 曲げ角度	180°	180°
	Inside Radius 曲げ半径	1.5xThickness	1.5xThickness
Charpy Impact Property ⁵⁾ 衝撃特性	Temperature 温度	-40℃	-40℃
	Specimen 試験片	2mm V-Notched	2mm V-Notched
	Absorbed Energy 吸収エネルギー	145 J	40 J min. ⁶⁾

Notes 1) Direction : Transverse to rolling direction T方向
2) Specimen : 25mm width × 50mm G.L.
3) Specimen : 14mm diameter × 50mm G.L.
4) Bending test is carried out when required in purchaser's specification
5) Direction : Longitudinal L方向
6) 6≤t<8.5mm : 20 J min.
8.5≤t≤12mm : 30 J min.
t : plate thickness 板厚

y-Groove Weld Cracking Test y形溶接割れ試験 (JIS Z 3158)

Welding method 溶接方法 : GMAW
Heat input 入熱 : 1.7kJ/mm
Atmospheric condition 雰囲気 : 20°C-60% (Relative Humidity / 相对湿度)





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