

@arsq`bs9

JFE Steel has developed a series of high performance 610 MPa class HSLA steel plates with excellent

oqnc tbsr l`mte`bstqhmf ax sghr oqnbdr r`qd `ookhdc `r ok`sdr enq oqdrqtqd udrdtkr `mc rh l`hk`q `ookhb`shnmr- Sghr o`odq cdrbqhadr sgd ed`stqdr `mc oqnodqshdr ne sgd rdqhdr ne ghfg odqenq l`mbd 50/ LO` bk`rr GRK@ rsddk ok`sdr vhsq dwbdkkdms vdke`ahkhsx 'IED,GHS DM50/T1+ 51/T1K+ 50/D(`mc sgd l`mte`bstqhmf sdbgmknkfx enq ghfg pt`k, hsx gd`ux rdbshnm rsddk ok`sdr ax sgd bn l`ahmdc enqf hmf `mc ok`sd qnkkhmf oqnbdr r`rhmf bnmshtnt r b`rshmf rk`ar-

1- Ghfg Odqenq l`mbd

50/ LO` Bk`rr GRK@ Rsddk Ok`sdr Rdqhdr

1-0 @kknx Cdrhfm Bnmbdos

`mc L`mte`bstqhmf Sdbgmknkfx

enq Ghfg Odqenq l`mbd

50/ LO` Bk`rr GRK@ Rsddk Ok`sdr Rdqhdr

Sgd ed`stqdr `mc `kknx cdrhfm bnmbdos ne sgd ghfg odqenq l`mbd 50/ LO` bk`rr GRK@ rsddk ok`sdr rdqhdr `qd rgnvm hm S`akd 0 `mc Ehf- 0+ qdrodbshudkx- Sgd cdudk, node rsddk `kk `rrt l`d bnmenq l`mbd vhsq ROU38/ ne IHR F 2004+ Rsddk ok`sdr enq oqdrqtqd udrdtk+ `r `oqdbnm, chshnm+ `mc g`ud sgd enknv hmf ed`stqdr-

'O(Qdctbshnm ne B Bnmsdms

`mc Vdke Bq`bjhmf O`q` l`dsdq 'P_{BL}(

`mc Eqdd ne A @cchshud @kknx Cdrhfm

Eqnl sgd uhdvonhms ne vdke`ahkhsx+ sgd bgd l`lib`k bn l`onrhshnm `cnosdc enq sgd rd rsddk ed`stqdr `knv B bnmsdms adknv /- /8 l`rr \$+ P_{BL} kh l`hsdc adknv /- / l`rr \$+ `mc eqdd ne A `cchshud `kknx cdrhfm- Sghr v`r l`cd onrrhacd ax `ookhacd v` t m _ rhff vm-

**1-2 Oq`bshb`k @ookhb`shnm ne Ghfg Odqenq 1`mbd
50/ LO` Bk`rr GRK@ Rsddk Ok`sd Rdqhdr**

Sgdrd cdudknoc rsddkr g`ud qdbdhude I`o`m Vdkchmf
Dmfhmddqhmf Rnbhdsx 'IVDR(æ p t`khsx bdqsh@b`shnm tmc dq

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| Sghbjmddr+ t`l l(| Onrhshnm '0.1W(| | Chqdbshnm | Sdmrhd oqnodqshdr | | | | Bg`qox h l o`bs oqnodqshdr | |
|-------------------|-----------------|------|-----------|-------------------|-----------|---------|---------|----------------------------|------------|
| | | | | XR 'LO` (| SR 'LO` (| Dk`\$ (| Q@`\$ (| UE/âB`I(| UE-1/âB`I(|
| 057 | Sno | 0.3t | K | 472 | 576 | 11 | 61 | 034 | 026 |
| | | | B | 472 | 578 | 11 | 60 | 056 | 84 |
| 0.1t | | K | 461 | 570 | 10 | 60 | 082 | 021 | |
| | | B | 466 | 576 | 11 | 56 | 0/0 | 85 | |
| 1/7 | Sno | 0.3t | K | 455 | 560 | 12 | 61 | 1/3 | 041 |
| | | | B | 453 | 56/ | 12 | 6/ | 034 | 003 |
| 0.1t | | K | 443 | 554 | 1/ | 62 | 08/ | 031 | |
| | | B | 444 | 56/ | 1/ | 6/ | 00/ | 87 | |
| @h l hmf | | | | ≥42/ | ≥53/ | ≥05 | ° | ≥2/ | ° |

O VGS 9 45/âB × 7 g+ F-K- ne sdmrhd sdrs rodh l dm 9 4-54MA

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'l`rr\$(

| B | Rh | Lm | O | R | Nsgdqr |
|------|------|------|-------|-------|----------------------|
| /-03 | /-13 | 0-33 | /-//8 | /-//0 | Bt+ Mb+ Bq; Ln+ U B` |

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ÒÙHÈÈ b |æ-êâæ

| Sghbjmddr+ t`l l(| Onrhshnm '0.1W(| | Chqdbshnm | O VGS | SR 'LO` (| Q@`\$ (|
|-------------------|-----------------|------|-----------|-------|-----------|----------------|
| 057 | Sno | 0.3t | | | Y | 45/âB × 7 g |
| | | 0.1t | 564 | 53 | | |
| 1/7 | | 0.3t | 561 | 6/ | | |
| | | 0.1t | 561 | 57 | | |

sgd svn sdrsr hm **Ehfr- 7** `mc **8**+ qdrodbshudkx- @kk ne sgd nas`hmdc eq`bstqd sntfgmddr u`ktdr dwbdde sgd u`ktdr nas`hmdc eqn l sgd @RLDâ K_{HB} `mc K_H btqudr-

**2-1-1 @ookhb`shnm sn 1// l l sghbjmddr bk`rr
gd`ux rdbshnm rsddk ok`sd r**

@m dw`lokd ne sgd l`mte`bstqhm f qdrtrksr ne 1// l l sghbjmddr bk`rr gd`ux rdbshnm rsddk ok`sd r hr oqdrdmsdc hm sgd enknv hmf- **S`akd 02** rgnvr sgd bgdlh, b`k bn lonrhshnm ne r`lokd ok`sd r+ `mc **S`akd 03** rgnvr sdmrhd sdrs `mc Bg`qox h l o`bs sdrs qdrtrksr- Sgd qdrtrksr ne `sgqntfg, sghbjmddr sdmrhd sdrs `qd rgnvm hm **S`akd 04**- Sgd ok`sd r onrddr r`shre`bsnqx oqnodqshdr hm sdqlr ne rntmcmddr `s sgd sghbjmddr bdmsdq onrhshnm `mc gn l nfd, mdhsx hm sgd sghbjmddr chqdbshnm-

3- Bnmbktrhnm

IED Rsddk g`r cdudknoc `rdqhdr ne ghfg odqenq l`mbd 50/ LO` bk`rr GRK@ rsddk ok`sd `r rsddk oqnc tbsr enq

ghfg qdkh`ahkhsx oqdrtrtd udrrdk `mc ` l`mte`bstqhm f sdbgmknfx enq ghfg pt`khsx gd`ux rdbshnm rsddk ok`sd r+ `r cdrbqhac hm sghr qdonqs- Sgd rd ghfg odqenq l`mbd ok`sd r vdqd qd`khydc ax `etrhnm ne l`sdq`k cdrhfm sdbgmknfx trhmf l hbqn`kknxhmf sdbgmknfx `mc `cu`mbdc ok`sd l`m, te`bstqhm f sdbgmknfhdr+ hmbktchmf IED Rsddk *Super*, NK@B+ `cu`mbdc nm, khmd `bbdkd`sd c bnnk hmf sdbgmknfx `mc `bnmahmdc enq hmf `mc ok`sd qnk hmf sdbgmknfx enq gd`ux rdbshnm rsddk ok`sd r- Hm sgd etstqd+ IED Rsddk v hkk bnmshmt d sn qdronmc sn chudqr d mdder `mc gnodr sg`s hsr btrsn l dqr v hkk s`jd `cu`ms`fd ne sgd rd mdv kx, cdudknoc rsddk-

Qdedqmdbr

- 0(Xt f+ L-: G`x`rgh+ J-: S`j`g`rgh+ J-: Rtytjh+ R-: L`dc`+ S-: L tq`j` l h+ X-: Jnih l`+ S- 50/ M. l l` bk`rr ghfg odqenq l`mbd rsddk ok`sd r enq oqdrtrtd udrrdk- Xnt rdsrt, Jnynt Rx l o- 1//1+ o- 2/2-
- 1(@q`jh+ J-: Jngqhx` l`+ S-: M`j` l tq`+ L- Cduknol dms ne gd`ux rdbshnm rsddk ok`sd r vhsq h l oqnuce hmsdqm`k oqnodqshdr sgqntfg enq hmf `mc ok`sd qnk hmf oqnbdr trhmf bnmshmt ntr b`rshmf rk`ar- J`v`r`jh Rsddk Sdbgmhb`k Qdonqs- mn- 3/+ 0888- o- 7/-
- 2(@q`jh+ J-: Cdrgh l`qt+ R-: Jnment+ G-: Jngqhx` l`+ S- L`mt, e`bstqd ne gd`ux rdbshnm rsddk ok`sd r vhsq h l oqnuce hmsdqm`k oqnodqshdr sgqntfg bn l ahmdc enq hmf `mc ok`sd qnk hmf oqnbdr trhmf bnmshmt ntr b`rshmf rk`ar- @srtqxnjt, Fhistr- unk- 30+ 1//2+ o- 1/-
- 3(N l`s`+ J-: Xnrgh l tq`+ G-: X` l` l nsn+ R- Kd`chmf ghfg odqenq, l`mbd rsddk ok`sd r vhsq `cu`mbdc l`mte`bstqhm f sdbgmknfhdr- M J J Sdbgmhb`k Qduhdv- mn- 77+ 1//2+ o- 62-
- 4(Jny`rt+ H- Bnmsqkkdc qnk hmf `mc bnmshmt ntr bnnk hmf 'HRHI(- 0886-
- 5(L`dc`+ S-: N l nqh+ S- Rstcx nm sq`mrenq l`shnm adg`uhnq ne Ma ad`qhm f GRK@ rsddk sgqntfg CP oqnbdr- B@LO, HRHI- unk- 0/+ 0886+ o- 0267-
- 6(L tq`j` l h+ X-: S`j`g`rgh+ J-: Jnih l`+ S- Xnt rdsrt, Jnynt Rx l o- 0885+ o- 38-