

LAIWU STEEL YINSHAN SECTION CO., LTD
MILL TEST CERTIFICATE

H21088
1982.19 M7
OK

NO.: ELD-E-4712-1607149

PAGE: 1

COMMODITY: HOT ROLLED ALLOY STEEL COILS, QUALITY STANDARD: JIS G3101-2015 SS400B (BORON: 0.0008%-0.0025%)

DATE: AUG.16, 2016

HEAT NO.	SIZE (MM)	COIL NO.	WEIGHT (MT)	MECHANICAL PROPERTIES						CHEMICAL COMPOSITION (%)													
				YIELD POINT ReL(N/mm ²)		TENSILE STRENGTH Rm(N/mm ²)		ELONGATION A (%)		C	Si	Mn	P	S	Cr	Ni	Cu	V	Nb	Al	Mo	Ti	B
H161-04826	5.00*1220	1607166501	19.5	349	346	442	439	30	31	0.12	0.14	0.3	0.028	0.008	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.018	0.001
H161-04826	5.00*1220	1607166502	19.54	349	346	442	439	30	31	0.12	0.14	0.3	0.028	0.008	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.018	0.001
H161-04826	5.00*1220	1607166503	19.56	349	346	442	439	30	31	0.12	0.14	0.3	0.028	0.008	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.018	0.001
H161-04829	3.00*1220	1607168501	19.56	380	377	476	373	36	37	0.12	0.17	0.32	0.027	0.007	0.02	0.01	0.01	0.002	0.001	0.015	0.001	0.023	0.0012
H161-04831	6.00*1220	1607167001	19.58	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04831	6.00*1220	1607167003	19.58	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04831	6.00*1220	1607167002	19.58	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04831	6.00*1220	1607167101	19.52	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04831	6.00*1220	1607167102	19.52	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04831	6.00*1220	1607167103	19.62	319	318	419	418	31	30	0.12	0.16	0.3	0.021	0.003	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.019	0.0014
H161-04835	3.25*1220	1607168801	19.56	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H161-04835	3.25*1220	1607168802	19.6	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H161-04835	3.25*1220	1607168803	19.58	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H161-04835	3.25*1220	1607168901	19.62	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H161-04835	3.25*1220	1607168902	19.56	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H161-04835	3.25*1220	1607168903	19.66	346	343	428	425	38	39	0.11	0.16	0.29	0.019	0.003	0.01	0.01	0.02	0.001	0.001	0.019	0.001	0.018	0.0014
H162-03813	5.00*1220	1607147401	19.3	318	319	430	431	30	29	0.12	0.17	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.019	0.001	0.019	0.0015
H162-03813	5.00*1220	1607147402	19.44	318	319	430	431	30	29	0.12	0.17	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.019	0.001	0.019	0.0015
H162-03813	5.00*1220	1607147403	19.5	318	319	430	431	30	29	0.12	0.17	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.019	0.001	0.019	0.0015
H162-03814	6.00*1220	1607150703	19.2	342	340	433	431	31	30	0.12	0.16	0.3	0.025	0.005	0.02	0.01	0.01	0.001	0.001	0.031	0.001	0.027	0.0018
H162-03814	6.00*1220	1607150702	18.93	342	340	433	431	31	30	0.12	0.16	0.3	0.025	0.005	0.02	0.01	0.01	0.001	0.001	0.031	0.001	0.027	0.0018
H162-03814	6.00*1220	1607150701	19.21	342	340	433	431	31	30	0.12	0.16	0.3	0.025	0.005	0.02	0.01	0.01	0.001	0.001	0.031	0.001	0.027	0.0018
H162-03871	4.50*1220	1607155101	18.96	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03871	4.50*1220	1607155102	19.34	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03871	4.50*1220	1607155103	19.1	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03871	4.50*1220	1607155202	19.16	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03871	4.50*1220	1607155201	19.42	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03871	4.50*1220	1607155203	19.32	385	386	465	465	30	31	0.1	0.13	0.3	0.026	0.005	0.01	0.01	0.01	0.001	0.001	0.009	0.001	0.016	0.0014
H162-03905	3.25*1220	1607165101	19.54	398	396	472	470	34	35	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.016	0.0014

for send on behalf of
Laiwu Steel Yinshan Section Co., Ltd

LAIWU STEEL YINSHAN SECTION CO., LTD
MILL TEST CERTIFICATE

NO.: ELD-E-4712-1607149

PAGE: 2

COMMODITY: HOT ROLLED ALLOY STEEL COILS, QUALITY STANDARD: JIS G3101-2015 SS400B (BORON: 0.0008%-0.0025%)

DATE: AUG.16, 2016

HEAT NO.	SIZE (MM)	COIL NO.	WEIGHT (MT)	MECHANICAL PROPERTIES						CHEMICAL COMPOSITION (%)													
				YIELD POINT ReL(N/mm ²)		TENSILE STRENGTH Rm(N/mm ²)		ELONGATION A (%)		C	Si	Mn	P	S	Cr	Ni	Cu	V	Nb	Al	Mo	Ti	B
H162-03905	3.25*1220	1607165002	19.56	398	396	472	470	35	36	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.017	0.0014
H162-03905	3.25*1220	1607165003	19.78	398	396	472	470	35	36	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.017	0.0014
H162-03905	3.25*1220	1607165101	19.6	398	396	472	470	34	35	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.017	0.0014
H162-03905	3.25*1220	1607165102	19.53	398	396	472	470	34	35	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.017	0.0014
H162-03905	3.25*1220	1607165103	19.6	398	396	472	470	34	35	0.13	0.14	0.29	0.018	0.01	0.01	0.01	0.01	0.001	0.001	0.033	0.001	0.017	0.0014
H162-03914	5.00*1220	1607166801	19.46	350	349	437	434	32	32	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03914	5.00*1220	1607166802	19.56	350	349	437	434	32	32	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03914	5.00*1220	1607166803	19.58	350	349	437	434	32	32	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03914	6.00*1220	1607166901	19.34	324	323	414	413	31	31	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03914	6.00*1220	1607166903	19.64	324	323	414	413	31	31	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03914	6.00*1220	1607166902	19.54	324	323	414	413	31	31	0.12	0.15	0.32	0.025	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.02	0.0017
H162-03916	7.00*1220	1607167301	19.62	328	325	419	416	31	32	0.12	0.17	0.29	0.018	0.004	0.01	0.01	0.01	0.001	0.001	0.024	0.001	0.025	0.0015
H162-03916	7.00*1220	1607167302	19.52	328	325	419	416	31	32	0.12	0.17	0.29	0.018	0.004	0.01	0.01	0.01	0.001	0.001	0.024	0.001	0.025	0.0015
H162-03916	7.00*1220	1607167501	19.58	328	325	419	416	31	32	0.12	0.17	0.29	0.018	0.004	0.01	0.01	0.01	0.001	0.001	0.024	0.001	0.025	0.0015
H162-03916	7.00*1220	1607167502	19.56	328	325	419	416	31	32	0.12	0.17	0.29	0.018	0.004	0.01	0.01	0.01	0.001	0.001	0.024	0.001	0.025	0.0015
H162-03919	5.00*1220	1607169101	19.46	323	322	412	411	31	31	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H162-03919	5.00*1220	1607169102	19.66	323	322	412	411	31	31	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H162-03919	5.00*1220	1607169103	19.6	323	322	412	411	31	31	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H162-03919	3.25*1220	1607169001	19.64	348	346	429	428	36	35	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H162-03919	3.25*1220	1607169002	19.58	348	346	429	428	36	35	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H162-03919	3.25*1220	1607169003	19.62	348	346	429	428	36	35	0.12	0.16	0.31	0.019	0.004	0.01	0.01	0.01	0.001	0.001	0.017	0.001	0.017	0.0013
H163-04585	4.00*1220	1607154702	19.4	345	344	427	425	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04585	4.00*1220	1607154703	19.46	345	344	427	425	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04585	4.00*1220	1607154701	19.34	345	344	427	425	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04585	4.00*1220	1607154704	19.38	345	344	427	425	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04585	4.50*1220	1607155002	19.28	385	384	464	461	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04585	4.50*1220	1607155003	19.42	385	384	464	461	30	31	0.12	0.18	0.31	0.017	0.007	0.02	0.01	0.02	0.001	0.001	0.018	0.001	0.018	0.0015
H163-04591	7.00*1220	1607155901	19.4	331	329	418	416	28	29	0.11	0.18	0.3	0.012	0.006	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.015	0.0014
H163-04591	7.00*1220	1607155902	19.52	331	329	418	416	28	29	0.11	0.18	0.3	0.012	0.006	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.015	0.0014

Laiwu Steel Yinshan Section Co., Ltd

LAIWU STEEL YINSHAN SECTION CO., LTD
MILL TEST CERTIFICATE

NO.: ELD-E-4712-1607149

PAGE: 3

COMMODITY: HOT ROLLED ALLOY STEEL COILS, QUALITY STANDARD: JIS G3101-2015 SS400B (BORON: 0.0008%-0.0025%)

DATE: AUG.16, 2016

HEAT NO.	SIZE (MM)	COIL NO.	WEIGHT (MT)	MECHANICAL PROPERTIES						CHEMICAL COMPOSITION (%)													
				YIELD POINT ReL(N/mm ²)		TENSILE STRENGTH Rm(N/mm ²)		ELONGATION A (%)		C	Si	Mn	P	S	Cr	Ni	Cu	V	Nb	Al	Mo	Ti	B
H163-04591	7.00*1220	1607155903	19.46	331	329	418	416	28	29	0.11	0.18	0.3	0.012	0.006	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.015	0.0014
H163-04625	3.00*1220	1607164602	19.3	390	386	499	496	34	36	0.11	0.14	0.29	0.019	0.008	0.01	0.01	0.01	0.001	0.001	0.022	0.001	0.017	0.0012
H163-04625	3.00*1220	1607164601	19.26	390	386	499	496	34	36	0.11	0.14	0.29	0.019	0.008	0.01	0.01	0.01	0.001	0.001	0.022	0.001	0.017	0.0012
H163-04625	3.00*1220	1607164604	19.46	390	386	499	496	34	36	0.11	0.14	0.29	0.019	0.008	0.01	0.01	0.01	0.001	0.001	0.022	0.001	0.017	0.0012
H163-04625	3.00*1220	1607164603	19.38	390	386	499	496	34	36	0.11	0.14	0.29	0.019	0.008	0.01	0.01	0.01	0.001	0.001	0.022	0.001	0.017	0.0012
H163-04628	4.00*1220	1607169501	19.58	362	357	477	470	28	29	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	4.00*1220	1607169502	19.6	362	357	477	470	28	29	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	4.00*1220	1607169503	19.56	362	357	477	470	28	29	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	3.00*1220	1607168601	19.62	358	361	465	469	34	35	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	3.00*1220	1607168602	19.58	358	361	465	469	34	35	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	3.00*1220	1607168603	19.58	358	361	465	469	34	35	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04628	3.00*1220	1607168604	19.58	358	361	465	469	34	35	0.12	0.15	0.31	0.018	0.008	0.01	0.01	0.01	0.001	0.001	0.015	0.001	0.021	0.0014
H163-04631	6.00*1220	1607170701	19.46	298	395	430	427	27	28	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04631	6.00*1220	1607170702	19.6	298	295	430	427	27	28	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04631	7.00*1220	1607170801	19.5	330	330	446	445	28	29	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04631	7.00*1220	1607170802	19.58	330	330	446	445	28	29	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04631	7.00*1220	1607170901	19.44	330	330	446	445	28	29	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04631	7.00*1220	1607170902	19.6	330	330	446	445	28	29	0.12	0.15	0.32	0.018	0.003	0.01	0.01	0.01	0.001	0.001	0.012	0.001	0.02	0.0014
H163-04634	5.00*1220	1607166602	19.58	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H163-04634	5.00*1220	1607166603	19.66	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H163-04634	5.00*1220	1607166601	19.54	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H163-04634	5.00*1220	1607166701	19.54	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H163-04634	5.00*1220	1607166702	19.6	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H163-04634	5.00*1220	1607166703	19.58	340	338	430	428	31	32	0.12	0.13	0.31	0.021	0.005	0.01	0.01	0.01	0.001	0.001	0.01	0.001	0.019	0.0014
H164-04178	7.00*1220	16071549-104	15.42	323	321	414	414	30	31	0.12	0.15	0.28	0.017	0.006	0.02	0.01	0.01	0.001	0.001	0.03	0.001	0.02	0.0014
H164-04178	4.00*1220	1607154903	19.44	346	343	430	426	33	32	0.12	0.15	0.28	0.017	0.006	0.02	0.01	0.01	0.001	0.001	0.03	0.001	0.02	0.0014
H164-04178	4.00*1220	1607154902	19.38	346	343	430	426	33	32	0.12	0.15	0.28	0.017	0.006	0.02	0.01	0.01	0.001	0.001	0.03	0.001	0.02	0.0014
H164-04178	4.00*1220	1607154901	19.46	346	343	430	426	33	32	0.12	0.15	0.28	0.017	0.006	0.02	0.01	0.01	0.001	0.001	0.03	0.001	0.02	0.0014

莱芜钢铁集团银山型钢有限公司
Laiwu Steel Yinshan Section Co., Ltd.

