



29077

FEDERAL CARIBOU

Original

 STAHLWERK THÜRINGEN		A03	Certificate No. 849/2-2018 Advice No. A180207019	1/2
		A02	Test Report according to ASTM A6	
A01	Stahlwerk Thüringen GmbH	A04		
A05	Quality Assurance Department Kronacher Straße 6 07333 Unterwellenborn Germany	A06		
A06	Our Order No.: 2072126117			
A07	Your Order No.: TAC260			
B02	Quality: A992 DUAL according to: ASTM A992 - ASTM A572 GR50			


Pos.	Heat No.	Dimension	Length	Pieces	Theoretical Weight
A10	B07	B01	B09	B08	B12
002	88702	C 12X20,7	480 in	28	10 516 kg
002	88703	C 12X20,7	480 in	294	110 418 kg
002	88704	C 12X20,7	480 in	232	87 133 kg

Heat Analysis [%]											
Heat No.	C	Si	Mn	P	S	N	Nb	V	Cr	Cu	
B07	C71	C72	C73	C74	C75	C76	C77	C78	C79	C80	
max	0.23	0.40	1.50	0.035	0.045	0.012	0.050	0.110	0.35	0.80	
min		0.10	0.50				0.005				
88702	0.09	0.20	0.94	0.027	0.029	0.009	0.021	0.006	0.09	0.33	
88703	0.09	0.18	0.93	0.021	0.029	0.008	0.018	0.006	0.10	0.30	
88704	0.09	0.19	0.93	0.018	0.028	0.008	0.019	0.006	0.09	0.27	

Heat Analysis [%]				
Heat No.	Ni	Mo	CEV1	Sn
B07	C81	C82	C83	C83
max	0.45	0.15	0.45	
min				
88702	0.10	0.02	0.29	0.012
88703	0.11	0.03	0.30	0.012
88704	0.12	0.03	0.30	0.012

Tensile test				
Heat No.	Yield stress [PSI]	Tensile strength [PSI]	Elongation [%]	Ys/Ts
B07	C11	C12	C13	C14
max	65000			0.85
min	50000	65000	21.0	
88702/1	57130	72645	30.0	0.79
88702/2	55680	72935	31.5	0.76
88703/1	59740	73515	31.0	0.81

Z03 Works inspector
René Merbach



Z02 Feb 7, 2018

 STAHLWERK THÜRINGEN		AD3 Certificate No. 849/2-2018 2/2 Advice No. A180207019
AD1 Stahlwerk Thüringen GmbH AD5 Quality Assurance Department Kronacher Straße 6 07333 Unterwellenborn Germany		AD2 Test Report according to ASTM A6 
AD8 Our Order No.: 2072126117 AD7 Your Order No.: TAC260		
B02 Quality: A992 DUAL according to: ASTM A992 - ASTM A572 GR50		


Tensile test Heat No.	Yield stress [PSI] [C11]	Tensile strength [PSI] [C12]	Elongation [%] [C13]	Ys/Ts [C14]
max	65000			0.85
min	50000	65000	21.0	
88703/2	54955	72790	32.5	0.75
88704/1	57855	73515	32.0	0.79
88704/2	55535	73080	32.5	0.76

Z01

- electric arc melting
- Melted & Manufactured in Germany
- fine grain silicon killed

We confirm herewith that the delivered material complies with the terms of the order.

Z03 Works inspector
René Merbach



Z02 Feb 7, 2018