

3250 N Arlington Heights Road Suite 101 Arlington Heights, IL 60004 T: 847.279.0001 F: 847.279.0002

> www.diecasting.org nadca@diecasting.org

January 4th, 2021 Tom Bell Groditz Steel North America A subsidiary of Schmiedewerke Gröditz GmbH 21660 W. Field Parkway Deer Park, Il 60010

Dear Tom,

This letter is in regards to the two Specimens SWG EX1+EX55 VICTORY ESR and SWG 2344 VICTORY ESR, that were submitted for approval to the NADCA 229-2018 "Special Quality Die Steel & Heat Treatment Acceptance Criteria for Die Casting Dies".

Schmiedewerke Gröditz GmbH, Germany submitted 2 specimens to be tested to the NADCA 229-2018 Standard.

1) Premium Class C - SWG EX1 VICTORY ESR

Premium Class C – SWG EX55 VICTORY ESR

2) Premium Class B - SWG 2344 VICTORY ESR

The testing results were completed by Element labs, 194 Internationale Blvd, Glendale Heights, Illinois 60139 and Case Western Reserve University.

A summary follows; SWG EX1 VICTORY ESR Premium Class C

SWG EX55 VICTORY ESR Premium Class C

Microcleanliness – Pass ASTM Grain size – 9.5 Banding – Pass Charpy Values – 24, 22, 24 - Pass Fatigue Test (CWRU) – Pass **Overall Evaluation - Pass**

SWG 2344 VICTORY ESR Premium Class B

Microcleanliness – Pass ASTM Grain size – 7.5 Banding – Pass Charpy Values – 17,18,18 - Pass Fatigue Test (CWRU) - Pass **Overall Evaluation - Pass**

Regards,

Brancalen

Paul Brancaleon, Director of Research, Education and Technology North American Die Casting Association