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APPROVED RUNNING AND STORAGE COMPOUNDS AND THREAD PROTECTORS

Procedure: ENG 05

Revision: 25

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1.0 Scope

1.1 This engineering specification lists the various approved thread compounds and thread protector vendors for U. S. Steel semi-premium and premium connections. No variations from these requirements shall be permitted without written approval from U. S. Steel product engineering.

2.0 Application

2.1 This specification is applicable to all licensees and approved threading facilities manufacturing U. S. Steel semi-premium and premium connections.

3.0 Reference Documents

3.1 TP1 Specification for Purchased Thread Protectors for Casing and Tubing, latest revision.

Note: TP1 Specification refers to the requirements used specifically by USS Corporate Quality to qualify new thread protector vendors.

4.0 Definitions

- 4.1 **Running Compound** Compound applied to a connection to prevent galling during makeup.
- 4.2 **Storage Compound** Compound applied to a connection to prevent corrosion during storage.
- 4.3 **Thread Protector** A device attached to a connection to prevent mechanical damage during storage and handling.

5.0 Thread Protectors

- 5.1 Only USS Qualified and Approved Thread Protector vendors shall be used.
 - 5.1.1 Table 1 lists all approved thread protector vendors per each connection.
 - 5.1.2 USSTP has the responsibility to qualify and approve thread protector vendors using TP1 Specification for Purchased Thread Protectors for Casing and Tubing Connections.

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5.2 Reconditioned Thread Protectors

- 5.2.1 Protectors shall not have damaged plastic (cracked, gouged, melted, torn, broken, missing threads, etc.).
- 5.2.2 Protectors shall not have visible ovality (out of roundness).
- 5.2.3 Protectors shall not have major dents deforming the thread area.
- 5.2.4 Protectors shall not have rounded drive holes or end notches used for installing protector.
- 5.2.5 Protectors shall have identification of size, thread, and model as applicable.
- 5.3 USS-CDC®, USS-CDC HTQ®, USS-CDC HTQ® SR, USS-FREEDOM HTQ®, and USS-FREEDOM HTS™.
 - 5.3.1 API BTC protectors may be substituted for USS-CDC®, USS-CDC HTQ®, USS-CDC HTQ® SR, USS-FREEDOM HTQ®, and USS-FREEDOM HTS™ provided they function properly.
- 5.4 All Other USS Proprietary Connections
 - 5.4.1 Protector color shall be in accordance with U. S. Steel color code P.M.S. 2955. With written approval from U. S. Steel Product Engineering, other colors may be allowed.
 - 5.4.2 All protectors shall be closed end, non-liftable design with a ¼" maximum diameter weep hole.
 - 5.4.3 Reconditioned protectors must meet the criteria under section 5.2.

6.0 Approved Compounds and Thread Protectors

- 6.1 Table 1 lists the following product information:
 - 6.1.1 Approved Running Compounds
 - 6.1.2 Approved Storage Compounds
 - 6.1.3 Approved Thread Protectors

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Table 1: Approved Compounds and Thread Protectors			
Product Line	Running Compound	Storage Compound	Thread Protector
USS-CDC®	BESTOLIFE® 2000® BESTOLIFE® 2000® AG BESTOLIFE® 2020 Jet-Lube® Run-N-Seal® Jet-Lube® Run-N-Seal Extreme® Topco Green-Seal II	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Hunting Composite Thread Protectors Drilltec ESP-S [™] , Drilltec ACT [™] , Drilltec STP [™] MSI Mega [®] Composite, MSI MaxX [®] , MSI MAGNUM [®] , MSI TITAN [®]
USS-CDC HTQ [®] USS-CDC HTQ [®] SR	BESTOLIFE® 2000® BESTOLIFE® 2000® AG BESTOLIFE® 2020 Jet-Lube® Run-N-Seal® Jet-Lube® Run-N-Seal Extreme® Topco Green-Seal II	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Hunting Composite Thread Protectors Drilltec ESP-S™, Drilltec ACT™, Drilltec STP™ MSI Mega® Composite, MSI MaxX®, MSI MAGNUM®, MSI TITAN® Tri-Star
USS-FREEDOM HTQ®	BESTOLIFE® 2000® BESTOLIFE® 2000® AG BESTOLIFE® 2020 Jet-Lube® Run-N-Seal® Jet-Lube® Run-N-Seal Extreme® Topco Green-Seal II	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Hunting Composite Thread Protectors Drilltec ESP-S [™] , Drilltec ACT [™] , Drilltec STP [™] MSI Mega [®] Composite, MSI MaxX [®] , MSI MAGNUM [®] , MSI TITAN [®]

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Product Line	Running Compound	Storage Compound	Thread Protector
USS-FREEDOM HTS™	BESTOLIFE® 2000® BESTOLIFE® 2000® AG	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Hunting Composite Thread Protectors
	BESTOLIFE® 2020		Drilltec ESP-S [™] , Drilltec ACT [™] , Drilltec STP [™]
	Jet-Lube [®] Run-N-Seal [®] Jet-Lube [®] Run-N-Seal Extreme [®]		MSI Mega [®] Composite, MSI MaxX [®] , MSI MAGNUM [®] , MSI TITAN [®]
	Topco Green-Seal II		
USS-LIBERTY LD®	Jet-Lube [®] Seal-Guard [®]	Jet-Lube [®] Korr-Guard [®]	Drilltec ESP-S [™]
	BESTOLIFE® 2000®	Kendex® OCTG	MSI Mega® Composite
	BESTOLIFE® PTC		
USS-LIBERTY FJM [®]	BESTOLIFE® 72733* Jet-Lube® Seal-Guard® BESTOLIFE® PTC BESTOLIFE® 72733*	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT [™] , Drilltec STP [™] , Drilltec ESP-S [™] MSI ULTRA [®] , MSI Mega [®] Composite
			Universal Tubi
USS-LIBERTY TC®	Jet-Lube [®] Seal-Guard [®] BESTOLIFE® PTC	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT [™] , Drilltec STP [™] , Drilltec ESP-S [™]
	BESTOLIFE® 72733*		MSI ULTRA®, MSI Mega® Composite, Tri-Star Protectors NMD Series®
	J.		Tri-Star
			Universal Tubi

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USS-EAGLE SFM® USS-EAGLE SFM® SC	Jet-Lube [®] HPHT [™] BESTOLIFE [®] 72733* BESTOLIFE [®] PTC	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ESP-S [™] MSI Mega [®] Composite
USS-EAGLE SFH® USS-EAGLE SFH® SC	Jet-Lube® HPHT™ BESTOLIFE® 72733®* BESTOLIFE® PTC	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT™, Drilltec STP™, Drilltec ESP-S™ MSI ULTRA®, MSI Mega® Composite Tri-Star Universal Tubi
USS-EAGLE FJM [®]	Jet-Lube [®] HPHT [™] BESTOLIFE [®] 72733*	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT [™] , Drilltec STP [™] , Drilltec ESP-S [™] MSI ULTRA [®] , MSI Mega [®] Composite
USS-TALON HTQ [®] USS-TALON SFC™	BESTOLIFE® 2000® BESTOLIFE® 2000® AG BESTOLIFE® 2020 Jet-Lube® Run-N-Seal® Jet-Lube® Run-N-Seal Extreme® Topco Green-Seal II	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT [™] , Drilltec STP [™] , Drilltec ESP-S [™] MSI ULTRA [®] , MSI Mega [®] Composite Universal Tubi Tri-Star

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USS-EAGLE TC™	BESTOLIFE® 72733* BESTOLIFE® PTC	Jet-Lube [®] Korr-Guard [®] Kendex [®] OCTG	Drilltec ACT [™] , Drilltec STP [™] , Drilltec ESP-S [™] Tri-Star

*NOTE:

Compound contains a USSTP restricted ingredient and shall not be handled by U. S. Steel personnel without appropriate controls.

7.0 Revision Notes:

- 7.1 Added USS-FREEDOM HTS™ to section 5.3.
- 7.2 Added USS-FREEDOM HTS™ to Table 1.

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