CLAIMS

~~**What is claimed is:**~~

1. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman signal device;

~~a secondary deadman signal device;~~

a base frame, with ~~each of~~ the primary deadman signal device ~~and the secondary deadman signal device~~ coupled with the base frame;

a trigger member movably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position~~, and also to contact and move the secondary deadman signal device to a respective signal-flow position~~;

an air source configured for fluid communication with the blast hose;

~~a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and~~

~~a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source,~~

~~wherein the deadman assembly further comprises a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position and an other lock flap position.~~

wherein a first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.

~~2. The abrasive blasting system of claim 1, wherein each of the primary and secondary deadman signal devices are configured to transmit a control signal, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from engaging the primary and secondary deadman signal devices.~~

~~3. The abrasive blasting system of claim 2, wherein when the lock flap is in the other lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device, and wherein the control signal is electrical.~~

~~4. The abrasive blasting system of claim 2, wherein when the lock flap is in the other lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device, and wherein the control signal is pneumatic.~~

~~5. The abrasive blasting system of claim 2, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~6. The abrasive blasting system of claim 1, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end, wherein the guard profile end has a lateral profile radial greater than a lateral member radial of the winged member end.~~

~~7. The abrasive blasting system of claim 1, wherein the primary deadman signal device and the secondary deadman signal device are electrical, and are each configured to pass or stop transmission of an electrical signal.~~

~~8. The abrasive blasting system of claim 1, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~

~~9~~2. The abrasive blasting system of claim 1, wherein the deadman assembly comprises ~~a first biased member configured to facilitate a first movable plunger engaging the primary signal device,~~ a second biased member configured to facilitate a second movable plunger engaging ~~the~~a second signal device.

~~10~~3. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman signal device;

a secondary deadman signal device;

a base frame, with each of the primary deadman signal device and the secondary deadman signal device coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, and also to contact and move the secondary deadman signal device to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

an air source configured for fluid communication with the blast hose;

a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source,

wherein the lock flap comprises a first lock flap position, a second lock flap position, and a third flap position, and

wherein when the lock flap is in the first lock flap position the trigger member is prohibited from moving the first and second deadman signal devices to each of their signal-flow positions.

~~11. The abrasive blasting system of claim 10, wherein each of the primary and secondary deadman signal devices are configured to transmit a control signal, and wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman signal device.~~

~~12. The abrasive blasting system of claim 11, wherein the control signal is one of pneumatic or electrical, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device.~~

~~13. The abrasive blasting system of claim 11, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end, wherein the guard profile end has a lateral profile radial greater than a lateral member radial of the winged member end.~~

~~14. The abrasive blasting system of claim 11, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~15. The abrasive blasting system of claim 14, wherein the primary deadman signal device and the secondary deadman signal device are electrical, and are each configured to pass or stop transmission of an electrical signal.~~

~~16. The abrasive blasting system of claim 1, wherein the deadman assembly comprises a first biased member configured to facilitate a first movable plunger engaging the primary signal device, a second biased member configured to facilitate a second movable plunger engaging the second signal device, and wherein the first biased member is further configured to facilitate the second movable plunger engaging the second signal device.~~

~~17~~4. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman signal device;

a secondary deadman signal device;

a base frame, with each of the primary deadman signal device and the secondary deadman signal device are coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, and also to contact and move the secondary deadman signal device to a secondary signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

an air source configured for fluid communication with the blast hose;

a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source,

wherein the lock flap comprises a first lock flap position, a second lock flap position, and a third flap position,

wherein when the lock flap is in the first lock flap position the trigger member is prohibited from moving the primary and secondary deadman signal devices to their signal-flow positions,

wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman signal device, and

wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device.

~~18. The abrasive blasting system of claim 17, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, wherein the primary deadman signal device and the secondary deadman signal devices are electrical, and the control signal is an electrical signal.~~

~~19. The abrasive blasting system of claim 17, wherein the control signal is one of pneumatic or electrical, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end, wherein the guard profile end has a lateral profile radial greater than a lateral member radial of the winged member end.~~

~~20. The abrasive blasting system of claim 17, wherein the deadman assembly comprises a first biased member configured to facilitate a first movable plunger engaging the primary signal device, a second biased member configured to facilitate a second movable plunger engaging the second signal device, and wherein the first biased member is further configured to facilitate the movement of the second movable plunger to engage the second signal device.~~

~~21~~5. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose,

wherein the deadman assembly comprises:

a primary deadman signal device;

~~a secondary deadman signal device;~~

a base frame, with ~~each of~~ the primary deadman signal device ~~and the secondary deadman signal device~~ coupled with the base frame; and

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, ~~and also to contact and move the secondary deadman signal device to a respective signal-flow position; and~~

~~a lock flap movably engaged between the base frame and the trigger member.~~

wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.

~~22. The method of claim 21, wherein the operating the deadman assembly step further comprises moving the trigger member in a manner whereby both of the primary deadman signal device and the secondary deadman signal device are moved to the respective signal-flow positions.~~

~~23. The method of claim 21, wherein when the trigger member does not move the secondary deadman signal device to the signal-flow position, the abrasive media is not discharged from the spray nozzle.~~

~~24. The method of claim 21, the method further comprising:~~

~~providing an air source configured in fluid communication with the blast hose;~~

~~providing a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and~~

~~providing a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source.~~

~~25. The method of claim 21, wherein the deadman assembly further comprises the lock flap configured with a first lock flap position and an other lock flap position, wherein in the first lock flap position, the abrasive media is not discharged from the blast hose, and wherein in the other lock flap position, the abrasive media is discharged from the blast hose.~~

~~26. The method of claim 21, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in a first lock flap position the trigger member is prohibited from closing the primary and secondary deadman signal devices.~~

~~27. The method of claim 26, wherein when the lock flap is in an other lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device, and wherein the control signal is electrical.~~

~~28. The method of claim 26, wherein when the lock flap is in an other lock flap position, the trigger member is not prohibited from engaging the secondary deadman signal device, and wherein the control signal is pneumatic.~~

~~29. The method of claim 26, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~30. The method of claim 21, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.~~

~~31. The method of claim 30, wherein the primary deadman signal device and the secondary deadman signal device are electrical, and are each configured to pass or stop transmission of an electrical signal.~~

~~32. The method of claim 21, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~

~~33. The method of claim 21, wherein the deadman assembly comprises a first biased member configured to facilitate a first movable plunger engaging the primary signal device, a second biased member configured to facilitate a second movable plunger engaging the second signal device, and wherein the first biased member is further configured to facilitate the second movable plunger engaging the second signal device.~~

~~34~~6. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose,

wherein the deadman assembly comprises:

a primary deadman signal device;

a secondary deadman signal device;

a base frame, with each of the primary deadman signal device and the secondary deadman signal device coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, and also to contact and move the secondary deadman signal device to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member, the lock flap movable to and from a first lock flap position, a second lock flap position, and a third lock flap position.

~~35. The method of claim 34, wherein the operating the deadman assembly in a manner to discharge the abrasive media further comprises moving the lock flap to the third lock flap position.~~

~~36. The method of claim 35, wherein the third lock flap position further comprises the trigger member moving the both of the primary deadman signal device and the secondary deadman signal device to the respective signal-flow positions.~~

~~37. The method of claim 36, the method further comprising:~~

~~providing an air source configured in fluid communication with the blast hose;~~

~~providing a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and~~

~~providing a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source.~~

~~38. The method of claim 35, wherein in the first lock flap position, the abrasive media is not discharged from the blast hose, and wherein in the third lock flap position, the abrasive media is discharged from the blast hose.~~

~~39. The method of claim 35, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman signal devices.~~

~~40. The method of claim 39, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, and wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.~~

~~41~~7. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman switch;

a secondary deadman switch;

a base frame, with each of the primary deadman switch and the secondary deadman switch coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman switch to a signal-flow position, and also to contact and move the secondary deadman switch to a secondary signal-flow position;

an air source configured for fluid communication with the blast hose;

a primary control valve in signal communication with the primary deadman switch and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman switch and also in fluid communication with the air source.

~~42. The abrasive blasting system of claim 41, wherein the deadman assembly further comprises a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position, and a third flap position.~~

~~43. The abrasive blasting system of claim 42, wherein each of the primary and secondary deadman switches are configured to transmit a control signal, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman switches.~~

~~44. The abrasive blasting system of claim 42, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman~~

switch, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch.

45. The abrasive blasting system of claim 42, wherein the lock flap is biased to the first lock flap position, wherein the trigger member comprises a recess for an end of the lock flap to reside therein when the lock flap is moved to the second lock flap position, and wherein the trigger member is biased to a no-blast position.

46. The abrasive blasting system of claim 41, the system further comprising:

a shut off valve in operable communication with the primary control valve;

an air valve in operable communication with the secondary control valve; and

a media (metering) valve also in operable communication with the secondary control valve.

47. The abrasive blasting system of claim 46, wherein operation of the shut off valve is independent of the air valve.

48. The abrasive blasting system of claim 41, wherein the primary deadman switch and the secondary deadman switch are electrical, and are each configured to pass or stop transmission of an electrical signal.

49. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman switch;

a secondary deadman switch;

a base frame, with each of the primary deadman switch and the secondary deadman switch coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman switch to a signal-flow position, and also to contact and move the secondary deadman switch to a secondary signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

an air source configured for fluid communication with the blast hose;

~~a primary control valve in signal communication with the primary deadman switch and also in fluid communication with the air source; and~~

~~a secondary control valve in signal communication with the secondary deadman switch and also in fluid communication with the air source.~~

~~50. The abrasive blasting system of claim 49, wherein the lock flap comprises a first lock flap position, a second lock flap position and a third flap position.~~

~~51. The abrasive blasting system of claim 50, wherein each of the primary and secondary deadman switches are configured to transmit a control signal, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the first and second deadman switches.~~

~~52. The abrasive blasting system of claim 51, wherein the control signal is one of pneumatic or electrical.~~

~~53. The abrasive blasting system of claim 52, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman switch, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch.~~

~~54. The abrasive blasting system of claim 50, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman switch, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch.~~

~~55. The abrasive blasting system of claim 54, wherein the lock flap is biased to the first lock flap position, wherein the trigger member comprises a recess for an end of the lock flap to reside therein when the lock flap is moved to the second lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~56. The abrasive blasting system of claim 55, the system further comprising:~~

~~a shut off valve in operable communication with the primary control valve;~~

~~an air valve in operable communication with the secondary control valve; and~~

~~a media (metering) valve also in operable communication with the secondary control valve.~~

57. The abrasive blasting system of claim 54, wherein the primary deadman switch and the secondary deadman switch are electrical, and are each configured to pass or stop transmission of an electrical signal.

58. An abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman switch;

a secondary deadman switch;

a base frame, with each of the primary deadman switch and the secondary deadman switch coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman switch to a signal-flow position, and also to contact and move the secondary deadman switch to a secondary signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

an air source configured for fluid communication with the blast hose;

a primary control valve in signal communication with the primary deadman switch and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman switch and also in fluid communication with the air source,

wherein the lock flap comprises a first lock flap position, a second lock flap position and a third flap position, and

wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman switches.

59. The abrasive blasting system of claim 58, wherein each of the primary and secondary deadman switches are configured to transmit a control signal, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman switch, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch.

60. The abrasive blasting system of claim 58, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, wherein the primary deadman switch and the secondary deadman switch are electrical, and the control signal is an electrical signal.

61. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly, the deadman assembly comprising:

a primary deadman switch;

a secondary deadman switch;

a base frame, with each of the primary deadman switch and the secondary deadman switch coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman switch to a signal-flow position, and also to contact and move the secondary deadman switch to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose,

providing an air source configured in fluid communication with the blast hose;

providing a primary control valve in signal communication with the primary deadman switch and also in fluid communication with the air source; and

providing a secondary control valve in signal communication with the secondary deadman switch and also in fluid communication with the air source,

wherein the lock flap comprises a first lock flap position, a second lock flap position and a third flap position.

62. The method of claim 61, wherein the operating the deadman assembly step further comprises moving the trigger member to the third position whereby both of the primary

~~deadman switch and the secondary deadman switch are moved to the respective signal-flow positions.~~

~~63. The method of claim 61, wherein when the trigger member does not move the secondary deadman switch to the signal-flow position, the abrasive media is not discharged from the spray nozzle.~~

~~64. The method of claim 61, wherein the primary deadman switch and the secondary deadman switch are electrical, and are each configured to pass or stop transmission of an electrical signal.~~

~~65. The method of claim 61, wherein in the first lock flap position and in the second lock flap position, the abrasive media is not discharged from the blast hose, and wherein in the third lock flap position, the abrasive media is discharged from the blast hose.~~

~~66. The method of claim 61, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman switches.~~

~~67. The method of claim 66, wherein when the lock flap is in the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch, and wherein the control signal is electrical.~~

~~68. The method of claim 66, wherein when the lock flap is in the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman switch, and wherein the control signal is pneumatic.~~

~~69. The method of claim 66, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~70. The method of claim 69, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.~~

~~71. The method of claim 70, wherein the primary deadman switch and the secondary deadman switch are electrical, and are each configured to pass or stop transmission of an electrical signal.~~

72. The method of claim 66, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.

73. The method of claim 71, wherein the deadman assembly comprises a first biased member configured to facilitate a first movable plunger engaging the primary deadman switch, a second biased member configured to facilitate a second movable plunger engaging the secondary deadman switch, and wherein the first biased member is further configured to facilitate the second movable plunger engaging the second deadman switch.

74. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly, the deadman assembly comprising:

a primary deadman switch;

a secondary deadman switch;

a base frame, with each of the primary deadman switch and the secondary deadman switch coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman switch to a signal-flow position, and also to contact and move the secondary deadman switch to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member, the lock flap movable to and from a first lock flap position, a second lock flap position, and a third lock flap position;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose;

providing an air source configured in fluid communication with the blast hose;

providing a primary control valve in signal communication with the primary deadman signal device and also in fluid communication with the air source; and

providing a secondary control valve in signal communication with the secondary deadman signal device and also in fluid communication with the air source.

75. The method of claim 74, wherein the operating the deadman assembly in a manner to discharge the abrasive media further comprises moving the lock flap to the third lock flap position.

76. The method of claim 75, wherein the third lock flap position further comprises the trigger member moving the both of the primary deadman switch and the secondary deadman switch to the respective signal-flow positions.

77. The method of claim 74, wherein when the trigger member does not move the secondary deadman switch to the signal-flow position, the abrasive media is not discharged from the spray nozzle, and wherein the primary deadman switch and the secondary deadman switch are electrical, and are each configured to pass or stop transmission of an electrical signal.

78. The method of claim 74, wherein in the first lock flap position, the abrasive media is not discharged from the blast hose, and wherein in the third lock flap position, the abrasive media is discharged from the blast hose.

79. The method of claim 75, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman switches.

80. The method of claim 79, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, and wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.

818. A pneumatic-controlled abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a base frame;

a primary deadman valve coupled with the base frame;

a secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member further comprising:

a first plunger configured to contact and move the primary deadman valve to a signal-flow position; and

a second plunger configured to contact and move the secondary deadman valve to a respective signal-flow position;

a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position, and a third lock flap position;

an air source configured for fluid communication with each of the primary and secondary deadman valves;

a regulator valve disposed between the deadman assembly and the air source, and configured in fluid communication therewith;

a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source,

wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting.

~~82. The pneumatic-controlled abrasive blasting system of claim 81, wherein the primary control valve comprises an internal mechanism configured to open or close the primary control valve, wherein movement of the internal mechanism to a closed position is air-assisted, wherein the secondary control valve comprises a respective internal mechanism configured to open or close the secondary control valve, and wherein movement of the respective internal mechanism to its closed position is also air-assisted.~~

~~83. The pneumatic-controlled abrasive blasting system of claim 81, wherein an intermediate regulator disposed between the air source and the regulator provides an~~

~~intermediate regulated pressure to facilitate the air-assisted movement of the respective internal mechanisms.~~

~~84. The pneumatic-controlled abrasive blasting system of claim 81, wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly, whereby upon transfer, a pressure differential of signal air between at least one of the primary and secondary deadman valves, and the respective primary and secondary control valve deactivation pressure setting, is in the range of at least 1 psi above the activation pressure setting to not more than 60 psi above the deactivation pressure setting.~~

~~85. The pneumatic-controlled abrasive blasting system of claim 84, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to the respective downstream control valves, and wherein when the lock flap is in the first lock flap position the first and second plungers are prohibited from opening the first and second deadman valves.~~

~~86. The pneumatic-controlled abrasive blasting system of claim 84, wherein when the lock flap is in the second lock flap position, the second plunger is prohibited from opening the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the second plunger is not prohibited from opening the secondary deadman valve.~~

~~87. The pneumatic-controlled abrasive blasting system of claim 84, wherein the lock flap is biased to the first lock flap position, wherein the trigger member comprises a recess for an end of the lock flap to reside therein when the lock flap is moved to the second lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~88. The pneumatic-controlled abrasive blasting system of claim 81, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds for a length of twinline 400 feet or less.~~

~~89. A pneumatic-controlled abrasive blasting system comprising:~~

~~a blast hose;~~

~~a deadman assembly coupled with the blast hose, the deadman assembly further comprising:~~

~~a base frame;~~

a primary deadman valve coupled with the base frame;

a secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member further comprising:

a first plunger configured to contact and move the primary deadman valve to a signal-flow position; and

a second plunger configured to contact and move the secondary deadman valve to a respective signal-flow position;

a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position, and a third lock flap position;

an air source configured for fluid communication with each of the primary and secondary deadman valves;

a regulator valve disposed between the deadman assembly and the air source, and configured in fluid communication therewith;

an intermediate regulator valve disposed between the regular valve and the air source, and configured in fluid communication therewith;

a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source; and

a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source,

wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting.

90. The pneumatic-controlled abrasive blasting system of claim 89, wherein the primary control valve comprises an internal mechanism configured to open or close the primary control valve, wherein movement of the internal mechanism to a closed position is air-assisted, wherein the secondary control valve comprises a respective internal mechanism configured to open or close the secondary control valve, and wherein movement of the respective internal mechanism to its closed position is also air-assisted.

91. The pneumatic-controlled abrasive blasting system of claim 90, wherein the intermediate regulator provides an intermediate regulated pressure to each of the primary control valve and the secondary control valve to facilitate the air-assisted movement of the respective internal mechanisms.

92. The pneumatic-controlled abrasive blasting system of claim 91, wherein the regulator valve is configured to further reduce the intermediate regulated pressure of airflow to the deadman assembly, whereby upon transfer, a pressure differential of signal air between at least one of the primary and secondary deadman valves, and the respective primary and secondary control valve deactivation pressure setting, is in the range of at least 1 psi above the activation pressure setting to not more than 60 psi above the deactivation pressure setting.

93. The pneumatic-controlled abrasive blasting system of claim 92, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to the respective downstream control valves, and wherein when the lock flap is in the first lock flap position the first and second plungers are prohibited from opening the first and second deadman valves.

94. The pneumatic-controlled abrasive blasting system of claim 93, wherein when the lock flap is in the second lock flap position, the second plunger is prohibited from opening the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the second plunger is not prohibited from opening the secondary deadman valve.

95. The pneumatic-controlled abrasive blasting system of claim 94, wherein the lock flap is biased to the first lock flap position, wherein the trigger member comprises a recess for an end of the lock flap to reside therein when the lock flap is moved to the second lock flap position, and wherein the trigger member is biased to a no-blast position.

96. The pneumatic-controlled abrasive blasting system of claim 95, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds for a length of twinline 400 feet or less.

97. A pneumatic-controlled abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a base frame;

a primary deadman valve coupled with the base frame;

a secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member further comprising:

a first plunger configured to contact and move the primary deadman valve to a signal-flow position; and

a second plunger configured to contact and move the secondary deadman valve to a respective signal-flow position;

a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position, and a third lock flap position;

an air source configured for fluid communication with each of the primary and secondary deadman valves and the blast hose;

a regulator valve disposed between the deadman assembly and the air source;

an intermediate regulator valve disposed between the air source and the regulator valve;

a primary control valve in signal communication with the primary deadman valve and also in direct fluid communication with the air source and the intermediate regulator valve;

a secondary control valve in signal communication with the secondary deadman valve and also in direct fluid communication with the air source and the intermediate regulator valve,

wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting, and wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly.

98. The pneumatic-controlled abrasive blasting system of claim 97, wherein when the lock flap is in the second lock flap position, the second plunger is prohibited from opening the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the second plunger is not prohibited from opening the secondary deadman valve.

99. The pneumatic-controlled abrasive blasting system of claim 97, wherein the lock flap is biased to the first lock flap position, wherein the trigger member comprises a recess for an

end of the lock flap to reside therein when the lock flap is moved to the second lock flap position, and wherein the trigger member is biased to a no-blast position.

100. The pneumatic-controlled abrasive blasting system of claim 97, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds for a length of twinline 400 feet or less.

101. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly, the deadman assembly comprising:

a primary deadman valve;

a secondary deadman valve;

a base frame, with each of the primary deadman valve and the secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman valve to a signal-flow position, and also to contact and move the secondary deadman valve to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose,

providing an air source configured in fluid communication with the blast hose;

providing a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source; and

providing a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source; and

providing a regulator valve disposed between the deadman assembly and the air source, and configured in fluid communication therewith;

~~wherein the lock flap comprises a first lock flap position, a second lock flap position and a third flap position.~~

~~102. The method of claim 101, wherein the operating the deadman assembly step further comprises moving the trigger member to the third position whereby both of the primary deadman valve and the secondary deadman valve are moved to the respective signal-flow positions.~~

~~103. The method of claim 101, wherein the primary control valve comprises an internal mechanism configured to open or close the primary control valve, wherein movement of the internal mechanism to a closed position is air-assisted, wherein the secondary control valve comprises a respective internal mechanism configured to open or close the secondary control valve, and wherein movement of the respective internal mechanism to its closed position is also air-assisted.~~

~~104. The method of claim 103, wherein an intermediate regulator disposed between the air source and the regulator provides an intermediate regulated pressure to facilitate the air-assisted movement of the respective internal mechanisms.~~

~~105. The method of claim 104, wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly, whereby upon transfer, a pressure differential of signal air between at least one of the primary and secondary deadman valves, and the respective primary and secondary control valve deactivation pressure setting, is in the range of at least 1 psi above the activation pressure setting to not more than 60 psi above the deactivation pressure setting.~~

~~106. The method of claim 103, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to the respective downstream control valves, and wherein when the lock flap is in the first lock flap position the first and second plungers are prohibited from opening the first and second deadman valves.~~

~~107. The method of claim 101, wherein when the lock flap is in the second lock flap position, the second plunger is prohibited from opening the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the second plunger is not prohibited from opening the secondary deadman valve.~~

~~108. The method of claim 101, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~109. The method of claim 101, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds for a length of twinline 400 feet or less.~~

~~110. The method of claim 101, wherein when the trigger member does not move the secondary deadman valve to the signal-flow position, the abrasive media is not discharged from the spray nozzle.~~

~~111. The method of claim 101, wherein in the first lock flap position and in the second lock flap position, the abrasive media is not discharged from the blast hose, and wherein in the third lock flap position, the abrasive media is discharged from the blast hose.~~

~~112. The method of claim 101, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman valves.~~

~~113. The method of claim 101, wherein when the lock flap is in the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman valve, and wherein the control signal is pneumatic.~~

~~114. The method of claim 101, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, and wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.~~

~~115. The method of claim 101, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~

~~116. The method of claim 101, wherein the deadman assembly comprises a first biased member configured to facilitate a first movable plunger engaging the primary deadman valve, a second biased member configured to facilitate a second movable plunger engaging the secondary deadman valve, and wherein the first biased member is further configured to facilitate the second movable plunger engaging the second deadman valve.~~

117. A method of abrasive blasting, the method comprising:

providing a blast hose, the blast hose operatively configured with a deadman assembly, the deadman assembly comprising:

a primary deadman valve;

a secondary deadman valve;

a base frame, with each of the primary deadman valve and the secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member configured to contact and move the primary deadman valve to a signal-flow position, and also to contact and move the secondary deadman valve to a respective signal-flow position; and

a lock flap movably engaged between the base frame and the trigger member, the lock flap movable to and from a first lock flap position, a second lock flap position, and a third lock flap position;

feeding an abrasive media to the blast hose;

operating the deadman assembly in a manner to discharge the abrasive media from a spray nozzle end of the blast hose;

providing an air source configured in fluid communication with the blast hose;

providing a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source;

providing a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source; and

providing a regulator valve disposed between the deadman assembly and the air source, and configured in fluid communication therewith.

118. The method of claim 117, wherein the operating the deadman assembly in a manner to discharge the abrasive media further comprises moving the lock flap to the third lock flap position, and wherein the third lock flap position further comprises the trigger member moving

~~the both of the primary deadman valve and the secondary deadman valve to the respective signal-flow positions.~~

~~119. The method of claim 117, wherein when the trigger member does not move the secondary deadman valve to the signal-flow position, the abrasive media is not discharged from the spray nozzle.~~

~~120. The method of claim 119, the method further comprising operating the deadman assembly in a manner to transmit a control signal therefrom, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from closing the primary and secondary deadman valves, wherein the lock flap is biased to the first lock flap position, wherein the trigger member is biased to a no-blast position, and wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end.~~

~~1219~~9. A pneumatic-controlled abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman valve; and

a secondary deadman valve;

an air source configured for fluid communication with each of the primary and secondary deadman valves and the blast hose;

a regulator valve disposed between the deadman assembly and the air source;

a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source;

a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source,

wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting, and

wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly.

~~122. The pneumatic-controlled abrasive blasting system of claim 121, the deadman assembly further comprising:~~

~~a base frame, with each of the primary deadman valve and the secondary deadman valve coupled with the base frame;~~

~~a trigger member pivotably coupled with the base frame, the trigger member further comprising:~~

~~a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position and a third flap position.~~

~~123. The pneumatic-controlled abrasive blasting system of claim 122, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to a respective downstream control valve based on the position of the respective deadman valve, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from engaging the first and second deadman valves.~~

~~124. The pneumatic-controlled abrasive blasting system of claim 121, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman valve.~~

~~125. The pneumatic-controlled abrasive blasting system of claim 124, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~126. The pneumatic-controlled abrasive blasting system of claim 121, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~127. The pneumatic-controlled abrasive blasting system of claim 121, the system further comprising:~~

~~a shut off valve in operable communication with the primary control valve;~~

~~an air valve in operable communication with the secondary control valve; and~~

~~a media (metering) valve also in operable communication with the secondary control valve.~~

128. The pneumatic-controlled abrasive blasting system of claim 127, wherein operation of the shut off valve is independent of the air valve.

129. The pneumatic-controlled abrasive blasting system of claim 121, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds.

130. The pneumatic-controlled abrasive blasting system of claim 121, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to a respective downstream control valve, wherein in a first position the trigger member is prohibited from engaging the first and second deadman valves.

131. A pneumatic-controlled abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman valve; and

a secondary deadman valve;

an air source configured for fluid communication with each of the primary and secondary deadman valves and the blast hose;

a regulator valve disposed between the deadman assembly and the air source;

a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source;

a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source,

wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting,

wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly.

~~132. The pneumatic-controlled abrasive blasting system of claim 131, the deadman assembly further comprising:~~

~~a base frame, with each of the primary deadman valve and the secondary deadman valve coupled with the base frame;~~

~~a trigger member pivotably coupled with the base frame, the trigger member further comprising:~~

~~a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position and a third flap position.~~

~~133. The pneumatic-controlled abrasive blasting system of claim 132, wherein each of the primary and secondary deadman valves are configured to transmit a control signal to the respective primary and secondary control valve, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from engaging the first and second deadman valves.~~

~~134. The pneumatic-controlled abrasive blasting system of claim 133, wherein when the lock flap is in the second lock flap position, the trigger member is prohibited from engaging the secondary deadman valve, and wherein when the lock flap is moved to the third lock flap position, the trigger member is not prohibited from engaging the secondary deadman valve.~~

~~135. The pneumatic-controlled abrasive blasting system of claim 134, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.~~

~~136. The pneumatic-controlled abrasive blasting system of claim 135, the system further comprising:~~

~~a shut off valve in operable communication with the primary control valve;~~

~~an air valve in operable communication with the secondary control valve; and~~

~~a media (metering) valve also in operable communication with the secondary control valve.~~

~~137. The pneumatic-controlled abrasive blasting system of claim 131, the system further comprising:~~

a shut off valve in operable communication with the primary control valve;

an air valve in operable communication with the secondary control valve; and

a media (metering) valve also in operable communication with the secondary control valve.

138. The pneumatic-controlled abrasive blasting system of claim 137, wherein operation of the shut off valve is independent of the air valve.

139. The pneumatic-controlled abrasive blasting system of claim 138, wherein during operation of the system in a blast mode, upon release of the deadman assembly the primary control valve and the secondary control valve deactivate in a range of at least 0.1 seconds to no more than 2.5 seconds.

140. A pneumatic-controlled abrasive blasting system comprising:

a blast hose;

a deadman assembly coupled with the blast hose, the deadman assembly further comprising:

a primary deadman valve;

a secondary deadman valve;

a base frame, with each of the primary deadman valve and the secondary deadman valve coupled with the base frame;

a trigger member pivotably coupled with the base frame, the trigger member further comprising: a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position, a second lock flap position and a third flap position

an air source configured for fluid communication with each of the primary and secondary deadman valves and the blast hose;

a regulator valve disposed between the deadman assembly and the air source;

a primary control valve in signal communication with the primary deadman valve and also in fluid communication with the air source;

~~a secondary control valve in signal communication with the secondary deadman valve and also in fluid communication with the air source,~~

~~wherein each of the primary control valve and the secondary control valve comprise a respective activation pressure setting and deactivation pressure setting,~~

~~wherein the regulator valve is configured to reduce the pressure of airflow to the deadman assembly.~~

~~141~~10. A deadman assembly comprising:

a primary deadman signal device;

~~a secondary deadman signal device;~~

a base frame, with ~~each of~~ the primary deadman signal device ~~and the secondary deadman signal device~~ coupled with the base frame; and

a trigger member movably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, ~~and also to contact and move the secondary deadman signal device to a respective signal-flow position;~~

~~wherein the deadman assembly further comprises a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position and an other lock flap position.~~

wherein a first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.

~~142~~11. The deadman assembly of claim ~~141~~10, wherein the deadman assembly further comprises a lock flap movably engaged between the base frame and the trigger member, the lock flap comprising a first lock flap position and another lock flap position, wherein ~~each of~~ the primary ~~and secondary~~ deadman signal device~~s~~ ~~are~~is configured to transmit a control signal, wherein when the lock flap is in the first lock flap position the trigger member is prohibited from engaging the primary ~~and secondary~~ deadman signal device~~s~~.

~~143~~12. The deadman assembly of claim ~~141~~11, wherein when the lock flap is in the other lock flap position, the trigger member is not prohibited from engaging the ~~secondary~~ primary deadman signal device.

~~144~~13. The deadman assembly of claim ~~141~~11, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.

~~145~~14. The deadman assembly of claim ~~141~~10, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end, wherein the guard profile end has a lateral profile radial greater than a lateral member radial of the winged member end.

~~146. The deadman assembly of claim 141, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~

~~147~~15. The deadman assembly of claim ~~141~~14, wherein the deadman assembly comprises ~~a first biased member configured to facilitate a first movable plunger engaging the primary signal device,~~ a second biased member configured to facilitate a second movable plunger engaging ~~the~~a second signal device.

~~148~~16. A deadman assembly comprising:

a primary deadman signal device;

~~a secondary deadman signal device;~~

a base frame, with ~~each of~~ the primary deadman signal device ~~and the secondary deadman signal device~~ coupled with the base frame; and

a trigger member movably coupled with the base frame, the trigger member configured to contact and move the primary deadman signal device to a signal-flow position, ~~and also to contact and move the secondary deadman signal device to a respective signal-flow position; and~~

~~a lock flap movably engaged between the base frame and the trigger member;~~

~~wherein the lock flap comprises a first lock flap position, a second lock flap position, and a third flap position, and~~

~~wherein when the lock flap is in the first lock flap position the trigger member is prohibited from moving the first and second deadman signal devices to each of their signal-flow positions.~~

wherein a first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and wherein a second biased member configured to facilitate a second movable plunger engaging the second signal device.

~~149~~17. The deadman assembly of claim ~~148~~16, the deadman assembly further comprising:

a secondary deadman signal device coupled with the base frame; and

a lock flap movably engaged between the base frame and the trigger member,

wherein the trigger member is also configured contact and move the secondary deadman signal device to a respective signal-flow position,

wherein the lock flap comprises a first lock flap position, a second lock flap position, and a third flap position,

wherein each of the primary and secondary deadman signal devices are configured to transmit a control signal, and

wherein when the lock flap is in the first lock flap position the trigger member is prohibited from engaging the primary and secondary deadman signal devices.

~~150~~18. The deadman assembly of claim ~~149~~17, wherein when the lock flap is in the third flap position, the trigger member is not prohibited from engaging the secondary deadman signal device.

~~151~~19. The deadman assembly of claim ~~150~~18, wherein the lock flap is biased to the first lock flap position, and wherein the trigger member is biased to a no-blast position.

~~152~~20. The deadman assembly of claim ~~151~~19, wherein the deadman assembly comprises a sloped guard profile having a guard profile end, and a winged member having a winged member end proximate the guard profile end, wherein the guard profile end has a lateral profile radial greater than a lateral member radial of the winged member end.

~~153. The deadman assembly of claim 151, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and while the primary signal device is in a signal flow position.~~

~~154. The deadman assembly of claim 148, wherein the trigger member is configured for a range of motion while the primary signal device is held in a signal flow position.~~

~~155. The deadman assembly of claim 148, wherein the trigger member is movable in range of motion while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~

~~156. The deadman assembly of claim 148, wherein the first bias member facilitates a range of motion of the trigger member while a first plunger is engaged with the primary signal device, and the primary signal device is in a signal flow position.~~