CLAIMS

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 base frame, with the primary 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;

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

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 the deadman assembly comprises a second biased member configured to facilitate a second movable plunger engaging a second signal device.

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.

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.

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 base frame, with the primary 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,

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.

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.

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.

8. 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.

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.

10. A deadman assembly comprising:

a primary deadman signal device;

a base frame, with the primary 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,

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.

11. The deadman assembly of claim 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 an other lock flap position, wherein the primary deadman signal device 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 deadman signal device.

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

13. The deadman assembly 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.

14. The deadman assembly of claim 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.

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

16. A deadman assembly comprising:

a primary deadman signal device;

a base frame, with the primary 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,

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.

17. The deadman assembly of claim 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.

18. The deadman assembly of claim 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.

19. The deadman assembly of claim 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.

20. The deadman assembly of claim 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.