

**Instructions:**

- Please complete all of the information requested on this form by filling in all appropriate fields and check boxes (To begin, select the hand tool in the tool box to the upper left and the "click" on the name field. From there you can "tab" or "click" from field to field).
- State the English or metric unit of measurement when responding to the questions below.
- Return completed form to the SAF-HOLLAND Powered Vehicle Systems Product Development and Planning Team by e-mailing directly to the email address below or by faxing to (231) 767-8856.
- If you have questions pertaining to information requested on this form, please contact Mr. Collin Dinsmoor, Director of Suspension Applications Engineering, by phoning (231) 777-8520 or by email: collin.dinsmoor@safholland.com.

CONTACT INFORMATION

**Person Completing This Form**

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 Country: \_\_\_\_\_

**Key Engineering Contact**

Name: \_\_\_\_\_  
 Title: \_\_\_\_\_  
 Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 E-mail: \_\_\_\_\_  
 Address (if different from above)  
 Street Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_  
 Country: \_\_\_\_\_

**Vehicle Type**

**Operational Classification**

- Straight Truck (Rigid)       4x2     4x4     6x2  
 Tractor                       6x4     6x6     8x4     Other \_\_\_\_x\_\_\_\_

**Operation Environment**

- On-Highway      Operation on Interstate or primary highways with maximum grades of 8%. Operation is subject to legal weight and dimensional limitations.
- On/Off-Highway      Operation on secondary roads with up to 25% of vehicle operation on roads with a maintained sand/gravel, crushed stone, or similar road surface. Maximum grades of 12% and frequent grades of 8% can be encountered. Operation is subject to legal weight and/or dimensional limitations or require special permit.
- Off-Highway      Operation on roads with a maintained sand/gravel, crushed rock, or similar road surface in excess of 25% of vehicle operation. Maximum grades of 12% and frequent grades of 8% can be encountered. (Limited off-road operation, less than 10% of total vehicle operation where grades and surface conditions may vary.) Operation may not be subject to legal weight or dimensional limitations.
- Off-Road      Operation under minimal or no road conditions for greater than 10% of total vehicle operation. Grades and surface conditions will vary. Operation is not subject to legal weight or dimensional limitations.

VEHICLE INFORMATION

**Vehicle Information**

Vehicle make: \_\_\_\_\_  
 Vehicle model: \_\_\_\_\_  
 Model year: \_\_\_\_\_

**Target Dates** (month/day/year)

Prototype build: \_\_\_\_\_  
 Vehicle test: \_\_\_\_\_  
 Start of production: \_\_\_\_\_

**Vehicle Weights**

Maximum Gross Vehicle Weight (GVW):  
 \_\_\_\_\_

Maximum Gross Combination Weight (GCW):  
 \_\_\_\_\_

Center of Gravity height (CG):  
 Empty: \_\_\_\_\_      Loaded: \_\_\_\_\_

"Site Travel" or "Creep Rating": \_\_\_\_\_  
 (Overload requirements when vehicle is fully loaded and auxillary axles are raised- generally a maximum of 5 mph [8kmh] loaded)

Please provide any additional detail on the vehicle's operational use as well as any considerations that will need to be made for extreme climate conditions:

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**Vehicle Information**

**Engine Configuration:**

- Front Engine                       Gas  
 Rear Engine                         Diesel  
 Hybrid/Other: \_\_\_\_\_

Is vehicle equipped with a Transfer Case?     Yes     No

**Frame Type and Dimension**

- 'C' channel  
 'I' Beam  
 Reinforcement or liners (please describe—including (A)(B)(D) dim):

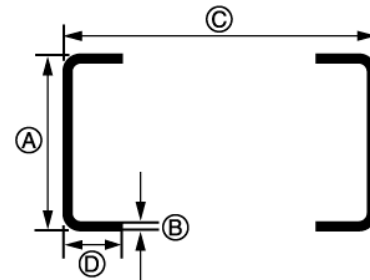
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Frame height (A): \_\_\_\_\_      Frame thickness (B): \_\_\_\_\_  
 Frame width (C): \_\_\_\_\_      Flange width (D): \_\_\_\_\_

Specifications for bolt hole patterns and sizes for fastening brackets should be:

- Standard SAF-HOLLAND specification  
 OEM Specifications (please submit with this form)

**Drive Axle Information:**

1<sup>st</sup> (Lead) Drive Axle Ride height: \_\_\_\_\_

2<sup>nd</sup> Drive Axle Ride height: \_\_\_\_\_

3<sup>rd</sup> Drive Axle Ride height: \_\_\_\_\_

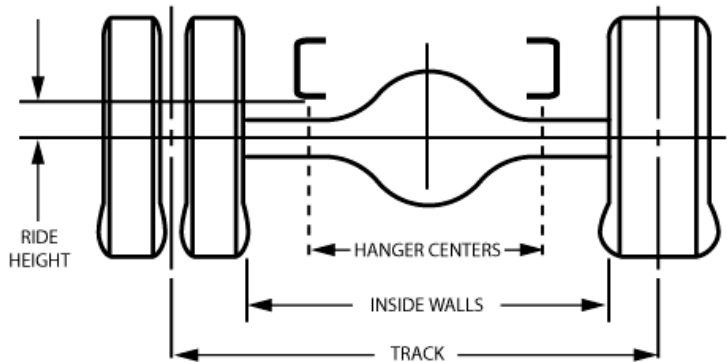
1<sup>st</sup> (Lead) Drive Axle Pinion Angle: \_\_\_\_\_

2<sup>nd</sup> Drive Axle Pinion Angle: \_\_\_\_\_

3<sup>rd</sup> Drive Axle Pinion Angle: \_\_\_\_\_

Frame slope or rake (front-to-rear): \_\_\_\_\_

Axle Spacing: \_\_\_\_\_



**Track Dimensions:**

Hanger centers: \_\_\_\_\_

Inside walls: \_\_\_\_\_

Track: \_\_\_\_\_

**Rear Drive Axles:**

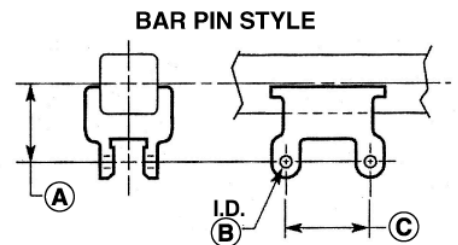
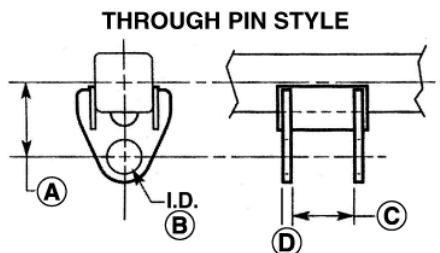
Axle Connection:

- Bar pin style  
 Through pin style  
 Other \_\_\_\_\_

Please enter measurements:

A: \_\_\_\_\_ C: \_\_\_\_\_

B: \_\_\_\_\_ D: \_\_\_\_\_



VEHICLE INFORMATION

### Steer Axle Information

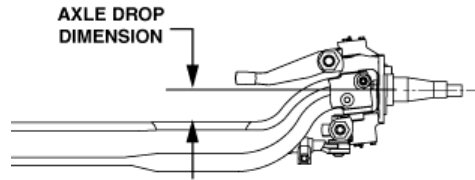
#### Axles

##### Steer Axle 1

##### Steer Axle 2

Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Rated Capacity: \_\_\_\_\_  
 Gross Axle Weight Rating (GAWR): \_\_\_\_\_  
 Axle Drop Dimension: \_\_\_\_\_

Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Rated Capacity: \_\_\_\_\_  
 Gross Axle Weight Rating (GAWR): \_\_\_\_\_  
 Axle Drop Dimension: \_\_\_\_\_



Is a drawing Available?  Yes  No

Is a drawing Available?  Yes  No

#### Tires

Single  
 Dual  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Tire Size: \_\_\_\_\_  
 Rim Size: \_\_\_\_\_  
 Loaded Radius: \_\_\_\_\_

Single  
 Dual  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Tire Size: \_\_\_\_\_  
 Rim Size: \_\_\_\_\_  
 Loaded Radius.: \_\_\_\_\_

#### Brakes

Hydraulic  
 Pneumatic  
 Drum  
 Disk  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Size: \_\_\_\_\_

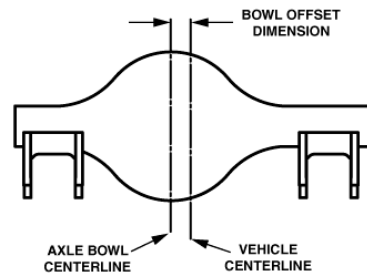
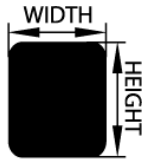
Hydraulic  
 Pneumatic  
 Drum  
 Disk  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Size: \_\_\_\_\_

### Drive Axle Information

#### Axles

Drive Axle 1	Drive Axle 2	Drive Axle 3
Make: _____	Make: _____	Make: _____
Model: _____	Model: _____	Model: _____
Rated Capacity: _____	Rated Capacity: _____	Rated Capacity: _____
Gross Axle Weight Rating (GAWR): _____	Gross Axle Weight Rating (GAWR): _____	Gross Axle Weight Rating (GAWR): _____

Axle Dimensions at Axle Connections: width: _____ height: _____	Axle Dimensions at Axle Connections: width: _____ height: _____	Axle Dimensions at Axle Connections: width: _____ height: _____
Bowl Offset: _____	Bowl Offset: _____	Bowl Offset: _____



Is a drawing Available?  Yes  No

Is a drawing Available?  Yes  No

Is a drawing Available?  Yes  No

#### Tires

<input type="checkbox"/> Single <input type="checkbox"/> Dual	<input type="checkbox"/> Single <input type="checkbox"/> Dual	<input type="checkbox"/> Single <input type="checkbox"/> Dual
Make: _____	Make: _____	Make: _____
Model: _____	Model: _____	Model: _____
Tire Size: _____	Tire Size: _____	Tire Size: _____
Rim Size: _____	Rim Size: _____	Rim Size: _____
Loaded Radius: _____	Loaded Radius.: _____	Loaded Radius: _____

#### Brakes

<input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Drum <input type="checkbox"/> Disk	<input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Drum <input type="checkbox"/> Disk	<input type="checkbox"/> Hydraulic <input type="checkbox"/> Pneumatic <input type="checkbox"/> Drum <input type="checkbox"/> Disk
Make: _____	Make: _____	Make: _____
Model: _____	Model: _____	Model: _____
Size: _____	Size: _____	Size: _____

### Auxillary Axle Information

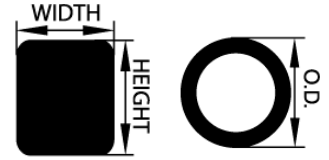
#### Axes

#### Auxillary Axle 1

Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Rated Capacity: \_\_\_\_\_  
 Gross Axle Weight Rating (GAWR): \_\_\_\_\_  
 Axle Type:  Square (width \_\_\_\_\_ x height \_\_\_\_\_)  
 Round (O.D.: \_\_\_\_\_)

#### Auxillary Axle 2

Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Rated Capacity: \_\_\_\_\_  
 Gross Axle Weight Rating (GAWR): \_\_\_\_\_  
 Axle Type:  Square (width \_\_\_\_\_ x height \_\_\_\_\_)  
 Round (O.D.: \_\_\_\_\_)



Drop Dimension (if Drop Axle): \_\_\_\_\_

Drop Dimension (if Drop Axle): \_\_\_\_\_

Check all that apply

- Tag (located behind drive axle)
- Pusher (located in front of drive axle)
- Automatic Control
- Manual Control
- Lifiable
- Non-lifiable
- Steerable
- Non-steerable

Distance from center of Drive Axle to center of Auxillary Axle (Axle Spacing) : \_\_\_\_\_

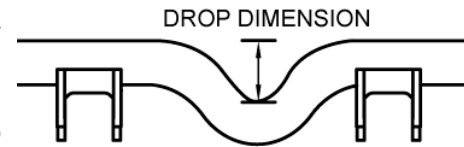
Is a drawing Available?  Yes  No

Check all that apply

- Tag (located behind drive axle)
- Pusher (located in front of drive axle)
- Automatic Control
- Manual Control
- Lifiable
- Non-lifiable
- Steerable
- Non-steerable

Distance from center of Drive Axle to center of Auxillary Axle (Axle Spacing) : \_\_\_\_\_

Is a drawing Available?  Yes  No



#### Tires

Single  
 Dual  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Tire Size: \_\_\_\_\_  
 Rim Size: \_\_\_\_\_  
 Loaded Radius: \_\_\_\_\_

Single  
 Dual  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Tire Size: \_\_\_\_\_  
 Rim Size: \_\_\_\_\_  
 Loaded Radius.: \_\_\_\_\_

#### Brakes

Hydraulic  
 Pneumatic  
 Drum  
 Disk  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Size: \_\_\_\_\_

Hydraulic  
 Pneumatic  
 Drum  
 Disk  
 Make: \_\_\_\_\_  
 Model: \_\_\_\_\_  
 Size: \_\_\_\_\_

Engine Brake?  No  
 Yes; Type: \_\_\_\_\_

Axle Retarders?  No  
 Yes; Quantity: \_\_\_\_\_ Make: \_\_\_\_\_ Model: \_\_\_\_\_

Outriggers?  No  Yes  
(For stability when using aerial platforms, booms, cranes, or aerial ladders)

**Performance Expectations**

Natural Frequency (Hz) Front: \_\_\_\_\_ Drive: \_\_\_\_\_ Auxillary: \_\_\_\_\_

Roll Stability (lb - ft/deg) Front: \_\_\_\_\_ Drive: \_\_\_\_\_ Auxillary: \_\_\_\_\_

**Commercial Information**

Price Target: \_\_\_\_\_

Weight Target: \_\_\_\_\_

Annual Volumes: \_\_\_\_\_

Ship To Location: \_\_\_\_\_

**SAF-HOLLAND Quotation to include (check all that apply):**

- Base suspensions, including air springs, shocks, and fasteners (except frame fasteners)
- Upper shock brackets
- Axle connection fastening hardware\*
- Frame and cross-member brackets for control rods
- Control Rods:  Torque rod  
 Track bar (panhard rod)  
 Axle bracket control rods
- Air Controls supplied by SAF-HOLLAND System air pressure: \_\_\_\_\_
- Height control valves:  One valve  
 Two valves  
 Suspension air exhaust (dump valve)  
 Air retention kit for outrigger-equipped vehicles

\* Axle adapters are typically supplied and welded to the axle by the axle manufacturer. Please describe if other arrangements are required:

\_\_\_\_\_  
\_\_\_\_\_

**Holland to Package Suspension for Shipment as:**

- Complete suspension kit
- Split suspension kit - separate frame kit and separate axle kit (used when axle/suspension pre-assembly is performed by a third party or axle suspension pre-assembly is at a separate location within the plant).

**Additional Notes:**

**SAF-HOLLAND Use Only:**

Received- Date: \_\_\_\_\_ By: \_\_\_\_\_ No.: \_\_\_\_\_

QUOTATION INFORMATION