H190-360HD SERIES

TECHNICAL GUIDE
Heavy-Duty Forklift Truck
For 90 degree Stacking Aisle add outside turning radius, plus dimension, plus load length.

Equal intersecting right angle aisle with 48.0" (1 219) forks and 67.0" wide x 72" long load (H170-280HD)

- H190HD: 139.6 (3 545)
- H210HD: 139.6 (3 545)
- H230HD: 139.6 (3 545)
- H240HD: 143.4 (3 643)
- H250HD: 143.4 (3 643)
- H280HD: 143.4 (3 643)
- H300HD: 155.0 (3 936)
- H330HD: 155.0 (3 936)
- H360HD: 155.0 (3 936)

16 35 35 24 24 19 18 17 21 19 23 20 25 23

Tow Pin

H190HD₂ - H360HD₂ SPECIFICATIONS
## H190HD₂ - H210HD₂ SPECIFICATIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>H190HD₂</th>
<th>H210HD₂</th>
</tr>
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<tbody>
<tr>
<td><strong>Engine</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturer</td>
<td>Cummins QSB6.7</td>
<td>Cummins QSB6.7</td>
</tr>
<tr>
<td>Model designation</td>
<td>Cummins QSB6.7</td>
<td>Cummins QSB6.7</td>
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<tr>
<td>Power: battery, diesel, LPG, electric mains</td>
<td>Diesel</td>
<td>Diesel</td>
</tr>
<tr>
<td>Transmission</td>
<td>SOH TE-10</td>
<td>SOH TE-10</td>
</tr>
<tr>
<td>Brake</td>
<td>Air / Drum</td>
<td>Air / Drum</td>
</tr>
<tr>
<td>Operation: manual, pedestrian, stand, sit, seat</td>
<td>Seat</td>
<td>Seat</td>
</tr>
<tr>
<td>Load capacity</td>
<td>lbs (kg)</td>
<td>lbs (kg)</td>
</tr>
<tr>
<td>in (mm)</td>
<td>19000 (8600)</td>
<td>21000 (9500)</td>
</tr>
<tr>
<td>Load center</td>
<td>in (mm)</td>
<td>24 (600)</td>
</tr>
<tr>
<td>Unladen weight including front end</td>
<td>lbs (kg)</td>
<td>27318 (12389)</td>
</tr>
<tr>
<td>Axle loading with load, front/rear</td>
<td>lbs (kg)</td>
<td>40127 (18198)</td>
</tr>
<tr>
<td>Axle loading without load, front/rear</td>
<td>lbs (kg)</td>
<td>13814 (6265)</td>
</tr>
<tr>
<td>Tires</td>
<td>Pneumatic</td>
<td>Pneumatic</td>
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<tr>
<td>Tire size, front</td>
<td>10.00-20 14PR</td>
<td>10.00-20 14PR</td>
</tr>
<tr>
<td>Tire size, rear</td>
<td>10.00-20 14PR</td>
<td>10.00-20 14PR</td>
</tr>
<tr>
<td>Number of wheels, front/rear (X = driven)</td>
<td>4X / 2</td>
<td>4X / 2</td>
</tr>
<tr>
<td>Wheelbase</td>
<td>in (mm)</td>
<td>106.3 (2700)</td>
</tr>
<tr>
<td>Overhead guard height (including wiper)</td>
<td>in (mm)</td>
<td>118.7 (3015)</td>
</tr>
<tr>
<td>Engine output, in accordance with ISO 14396</td>
<td>hp (kW)</td>
<td>155 (116)</td>
</tr>
<tr>
<td>Engine torque lb-ft/rpm (Nm/rpm)</td>
<td>440/1500 (597/1500)</td>
<td>440/1500 (597/1500)</td>
</tr>
<tr>
<td>Gradeability with load, front/rear</td>
<td>%</td>
<td>63</td>
</tr>
<tr>
<td>Gradeability without load, front/rear</td>
<td>%</td>
<td>63</td>
</tr>
<tr>
<td>Maximum drawbar pull with load (at 1 mph/1.6km/h)</td>
<td>lbs (kg)</td>
<td>230643 (104600)</td>
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<tr>
<td>Maximum drawbar pull without load (at 1 mph/1.6km/h)</td>
<td>lbs (kg)</td>
<td>79380 (36000)</td>
</tr>
<tr>
<td>Number of cylinders/displacement</td>
<td>in³/cm³</td>
<td>6/409 (6/6700)</td>
</tr>
<tr>
<td>Transmission</td>
<td>3-speed autoshift</td>
<td>3-speed autoshift</td>
</tr>
<tr>
<td>Working pressure for attachments</td>
<td>psi (bar)</td>
<td>2800 (193)</td>
</tr>
<tr>
<td>Oil flow for attachments</td>
<td>gpm (l/min)</td>
<td>26.4 (100)</td>
</tr>
</tbody>
</table>

**CERTIFICATION:** These Hyster® lift trucks meet design specifications of Part II ANSI B56.1-1969, as required by OSHA Section 1910.178(a)(2) and also comply with Part III ANSI B56.1-revision in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck. Performance specifications are for a truck equipped as described under Standard Equipment on this Technical Guide. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as by the nature, condition of the operating area, proper service and maintenance of the vehicle. If these specifications are critical, the proposed application should be discussed with your dealer.
### H230HD2 - H230HD2S SPECIFICATIONS

<table>
<thead>
<tr>
<th>Dimension</th>
<th>H230HD2</th>
<th>H230HD2S</th>
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<tbody>
<tr>
<td>Engine</td>
<td>Cummins G86.7</td>
<td>Cummins G86.7</td>
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<tr>
<td>Manufacturer/type</td>
<td>Cummins G86.7</td>
<td>Cummins G86.7</td>
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<tr>
<td>Engine torque</td>
<td>440/1500 (597/1500)</td>
<td>440/1500 (597/1500)</td>
</tr>
<tr>
<td>Maximum drawbar pull</td>
<td>220509 (99060)</td>
<td>243432 (114000)</td>
</tr>
<tr>
<td>Maximum drawbar pull without load</td>
<td>90846 (41200)</td>
<td>90846 (41200)</td>
</tr>
<tr>
<td>Gradability with load</td>
<td>%</td>
<td>38</td>
</tr>
<tr>
<td>Gradability without load (at 1 mph/1.6km/h)</td>
<td>%</td>
<td>31</td>
</tr>
<tr>
<td>Gradability with load</td>
<td>%</td>
<td>46</td>
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<tr>
<td>Gradability without load</td>
<td>%</td>
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</tr>
<tr>
<td>Service brake air brakes / wet brakes</td>
<td>air</td>
<td>air</td>
</tr>
<tr>
<td>Engine output, in accordance with ISO 1436</td>
<td>hp (kW)</td>
<td>155 (116)</td>
</tr>
<tr>
<td>Governed speed</td>
<td>rpm</td>
<td>2300</td>
</tr>
<tr>
<td>Number of cylinders/displacement</td>
<td>in³ (cm³)</td>
<td>6/409 (6/6700)</td>
</tr>
<tr>
<td>Transmission</td>
<td>3-speed autoshift</td>
<td>3-speed autoshift</td>
</tr>
<tr>
<td>Working pressure for attachments</td>
<td>psi (bar)</td>
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</tr>
<tr>
<td>Oil flow for attachments</td>
<td>gpm (l/min)</td>
<td>26.4 (100)</td>
</tr>
<tr>
<td>Transmission manufacturer/type</td>
<td>SOH TE-10</td>
<td>SOH TE-10</td>
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<td>Engine</td>
<td>Cummins G86.7</td>
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<tr>
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<td>3-speed autoshift</td>
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<tr>
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<td>gpm (l/min)</td>
<td>26.4 (100)</td>
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<tr>
<td>Transmission manufacturer/type</td>
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<td>SOH TE-10</td>
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<tr>
<td>Engine</td>
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<td>Cummins G86.7</td>
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<tr>
<td>Engine torque</td>
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</tr>
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<tr>
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<td>air</td>
</tr>
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<td>hp (kW)</td>
<td>155 (116)</td>
</tr>
<tr>
<td>Governed speed</td>
<td>rpm</td>
<td>2300</td>
</tr>
<tr>
<td>Number of cylinders/displacement</td>
<td>in³ (cm³)</td>
<td>6/409 (6/6700)</td>
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<tr>
<td>Transmission</td>
<td>3-speed autoshift</td>
<td>3-speed autoshift</td>
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</tbody>
</table>
## H250HD - H280HD SPECIFICATIONS

### GENERAL
- **Manufacturer**: HYSTER
- **Model designation**: H250HD, H280HD
- **Power**: battery, diesel, LPG, electric mains
- **Transmission**: SOH TE-10 (Air/Drum), ZF WG161 (Wet Disc)
- **Brake**: Air/Drum, Wet Disc
- **Operation**: manual, pedestrian, stand, sit, seat
- **Load capacity**: 25000 (12000), 28000 (12000)
- **Load center**: 24 (600), 24 (600)
- **Wt.**: 32581 (15444)
- **Unladen weight including front end**: 2561 (15444)
- **Load capacity**: 52722 (24773), 4810 (2672), 52722 (24773), 4810 (2672)
- **Axle loading without load, front/rear**: 15938 (7136), 16643 (8308), 15938 (7136), 16643 (8308)
- **Transmission manufacturer/type**: SOH TE-10 ZF WG161

### WHEELS
- **Tires**: Pneumatic
- **Number of wheels, front/rear (X = driven)**: 4X/2
- **Axle loading without load, front/rear**: 15938 (7136), 16643 (8308), 15938 (7136), 16643 (8308)
- **Transmission manufacturer/type**: SOH TE-10 ZF WG161

### DIMENSIONS
- **Fork dimensions**: 3.0/48.0 (75/200/1220), 3.0/48.0 (75/200/1220), 3.0/48.0 (75/200/1220), 3.0/48.0 (75/200/1220)
- **Fork carriage type**: Pneumatic
- **Out to out dimension, fork positioner**: 20.5 - 87.8 (520-2230)
- **Sideshift from center of truck**: 9.9 (252)
- **Ground clearance, center of wheelbase**: 11.5 (292)
- **Ground clearance under mast, with load**: 8.9 (225)
- **Inner turning radius**: 161.9 (4111)
- **Outer turning radius**: 161.9 (4111)
- **Wheelbase**: 114.2 (2900), 114.2 (2900)
- **Number of cylinders/displacement in3 (cm3)**: 6/409 (6/6700)
- **Governed speed rpm**: 2300
- **Engine output, in accordance with ISO 14396**: 155 (116)
- **Number of cylinders/displacement**: 6/409 (6/6700)
- **Maximum drawbar pull without load**: 187866 (89200)
- **Maximum drawbar pull with load**: 218736 (99200)
- **Maximum drawbar pull without load**: 187866 (89200)
- **Maximum drawbar pull with load**: 218736 (99200)
- **Service brake air/water**: air/water
- **Engine manufacturer/type**: Cummins QSB6.7
- **Engine torque**: 440/1500 (597/1500)
- **Engine type**: LPG
- **Transmission**: 3-speed autoshift
- **Governed speed**: 2300
- **Number of cylinders/displacement**: 6/409 (6/6700)
- **Oil flow for attachments gpm (l/min)**: 26.4 (100)
- **Unladen weight including front end**: 2561 (15444)
- **Load capacity**: 52722 (24773), 4810 (2672), 52722 (24773), 4810 (2672)
- **Axle loading without load, front/rear**: 15938 (7136), 16643 (8308), 15938 (7136), 16643 (8308)
- **Transmission manufacturer/type**: SOH TE-10 ZF WG161

### PERFORMANCE
- **Load capacity**: 25000 (12000), 28000 (12000)
- **Load center**: 24 (600), 24 (600)
- **Wt.**: 32581 (15444)
- **Transmission**: SOH TE-10 ZF WG161

### OTHER
- **Load capacity**: 25000 (12000), 28000 (12000)
- **Load center**: 24 (600), 24 (600)
- **Wt.**: 32581 (15444)
- **Transmission**: SOH TE-10 ZF WG161

**CERTIFICATION**: These Hyster® lift trucks meet design specifications of Part II ANSI B56.1-1989, as required by OSHA Section 1910.178(a)(2) and also comply with Part III ANSI B56.1-1986 in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck. Performance specifications are for a truck equipped as described under Standard Equipment on this Technical Guide. Performance specifications are affected by the condition of the vehicle and how it is equipped, as well as by the nature, condition of the operating area, proper service and maintenance of the vehicle. If these specifications are critical, the proposed application should be discussed with your dealer.
### H300HD2 - H330HD2 SPECIFICATIONS

<table>
<thead>
<tr>
<th>GENERAL</th>
<th>HYSTER</th>
<th>HYSTER</th>
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</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>HYSTER</td>
<td>HYSTER</td>
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<tr>
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<td>H330HD</td>
</tr>
<tr>
<td>Transmission</td>
<td>SOH TE-10</td>
<td>ZF WG161</td>
</tr>
<tr>
<td>Brake</td>
<td>Air / Drum</td>
<td>Wet Disc</td>
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### WHEELS

<table>
<thead>
<tr>
<th>Tires</th>
<th>Pneumatic</th>
<th>Pneumatic</th>
<th>Pneumatic</th>
<th>Pneumatic</th>
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</thead>
<tbody>
<tr>
<td>Tires</td>
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<td>26x10.50-12</td>
<td>26x10.50-12</td>
<td>26x10.50-12</td>
</tr>
<tr>
<td>Axle loading with load, front/rear</td>
<td>lbs (kg)</td>
<td>lbs (kg)</td>
<td>lbs (kg)</td>
<td>lbs (kg)</td>
</tr>
<tr>
<td>63532 (28731)</td>
<td>3138 (1430)</td>
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<td>5138 (2330)</td>
<td>5138 (2330)</td>
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### PERFORMANCE

<table>
<thead>
<tr>
<th>Engine manufacturer/type</th>
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<th>Cummins QSB6.7</th>
<th>Cummins QSB6.7</th>
<th>Cummins QSB6.7</th>
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</thead>
<tbody>
<tr>
<td>Engine output, in accordance with ISO 14396</td>
<td>hp (kW)</td>
<td>hp (kW)</td>
<td>hp (kW)</td>
<td>hp (kW)</td>
</tr>
<tr>
<td>155 (116)</td>
<td>115 (116)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>155 (116)</td>
<td>155 (116)</td>
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### OTHER

<table>
<thead>
<tr>
<th>Working pressure for attachments</th>
<th>psi (bar)</th>
<th>psi (bar)</th>
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</thead>
<tbody>
<tr>
<td>2800 (193)</td>
<td>2800 (193)</td>
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### CERTIFICATION:

"These Hyster® lift trucks meet design specifications of Part II ANSI B56.1-1989, as required by OSHA Section 1910.178(a)(2) and also comply with Part III ANSI B56.1-1997 in effect at time of manufacture. Certification of compliance with the applicable ANSI standards appears on the lift truck.

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**H360HD₂ SPECIFICATIONS**

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<thead>
<tr>
<th>Manufacturer</th>
<th>HYSTER</th>
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<tbody>
<tr>
<td>Model designation</td>
<td>H360HD₂</td>
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<td>Power: battery, diesel, LPG, electric mains</td>
<td>Diesel</td>
</tr>
<tr>
<td>Transmission</td>
<td>SOH TE-10</td>
</tr>
<tr>
<td>Brake</td>
<td>Air / Drum</td>
</tr>
</tbody>
</table>

**GENERAL**

| Load capacity | lbs (kg) | 36000 (16000) |
| Load center | in (mm) | 34 (800) |
| Unladen weight including front end | lbs (kg) | 43763 (19847) |
| Axle loading with load, front/rear | lbs (kg) | 72966 (33091) | 6077 (2756) |
| Axle loading without load, front/rear | lbs (kg) | 22054 (10002) | 21708 (9845) |

**WHEELS**

| Tire size, front | Pneumatic |
| Tire size, rear | Pneumatic |
| Tread, front | in (mm) | 89.6 (2276) | 89.6 (2276) |
| Tread, rear | in (mm) | 76.7 (1950) | 76.7 (1950) |
| Mast tilt, a = forward / b = back | degrees | 15/12 | 15/12 |
| Height of mast, lowered | in (mm) | 176.0 (4466) | 176.0 (4466) |
| Lift height | in (mm) | 212.0 (5400) | 212.0 (5400) |
| Height of mast, extended; without LBE | in (mm) | 281.0 (7120) | 281.0 (7120) |
| Overhead guard height (including wiper) | in (mm) | 120.6 (3064) | 120.6 (3064) |
| Length to face of forks w/std. carriage | in (mm) | 197.0 (5004) | 197.0 (5004) |
| Length distance | in (mm) | 33.9 (862) |
| Wheelbase | in (mm) | 129.9 (3300) |
| Tread width, front | in (mm) | 89.6 (2276) | 89.6 (2276) |
| Tread width, rear | in (mm) | 78.7 (2000) | 78.7 (2000) |
| Mast tilt | degrees | 3.9 |
| Dimensions | Overall width - dry brake axle/wet brake axle* | in (mm) | 102.64 (2607) | 102.64 (2607) |
| Number of wheels, front/rear | X = driven | 4X / 2 | 4X / 2 |
| Number of rear wheels | 2 | |
| Ground clearance under mast, with load | in (mm) | 7.0 (178) |
| Ground clearance, center of wheelbase | in (mm) | 13.6 (346) |
| Lift height | in (mm) | 257.7 (6564) | 257.7 (6564) |
| Tread width, front | in (mm) | 89.6 (2276) | 89.6 (2276) |
| Tread width, rear | in (mm) | 78.7 (2000) | 78.7 (2000) |
| Axle loading, front/rear | lbs (kg) | 72966 (33091) | 6077 (2756) |
| Axle loading, front/rear | lbs (kg) | 22054 (10002) | 21708 (9845) |
| Axle loading, front/rear | lbs (kg) | 22054 (10002) | 21708 (9845) |

**DIMENSIONS**

| Tire size, front | Pneumatic |
| Tire size, rear | Pneumatic |
| Tread, front | in (mm) | 89.6 (2276) | 89.6 (2276) |
| Tread, rear | in (mm) | 76.7 (1950) | 76.7 (1950) |
| Mast tilt, a = forward / b = back | degrees | 15/12 | 15/12 |
| Height of mast, lowered | in (mm) | 176.0 (4466) | 176.0 (4466) |
| Lift height | in (mm) | 212.0 (5400) | 212.0 (5400) |
| Height of mast, extended; without LBE | in (mm) | 281.0 (7120) | 281.0 (7120) |
| Overhead guard height (including wiper) | in (mm) | 120.6 (3064) | 120.6 (3064) |
| Length to face of forks w/std. carriage | in (mm) | 197.0 (5004) | 197.0 (5004) |
| Length distance | in (mm) | 33.9 (862) |
| Wheelbase | in (mm) | 129.9 (3300) |
| Tread width, front | in (mm) | 89.6 (2276) | 89.6 (2276) |
| Tread width, rear | in (mm) | 78.7 (2000) | 78.7 (2000) |
| Axle loading, front/rear | lbs (kg) | 72966 (33091) | 6077 (2756) |
| Axle loading, front/rear | lbs (kg) | 22054 (10002) | 21708 (9845) |
| Axle loading, front/rear | lbs (kg) | 22054 (10002) | 21708 (9845) |

**PERFORMANCE**

| Travel speed with load | mph (kph) | 14.5 (23.3) |
| Travel speed without load | mph (kph) | 17.0 (27.3) |
| Lifting speed loaded (Std. Performance) | fpm (m/sec) | 55.1 (0.28) |
| Lifting speed unloaded (Std. Performance) | fpm (m/sec) | 64.9 (0.42) |
| Lowering speed loaded (Std. Performance) | fpm (m/sec) | 95.4 (0.48) |
| Lowering speed unloaded (Std. Performance) | fpm (m/sec) | 87.0 (0.44) |
| Lifting speed loaded (High Performance)* | fpm (m/sec) | 66.9 (0.34) |
| Lifting speed unloaded (High Performance)* | fpm (m/sec) | 98.4 (0.50) |
| Lowering speed loaded (High Performance)* | fpm (m/sec) | 98.4 (0.50) |
| Lowering speed unloaded (High Performance)* | fpm (m/sec) | 90.6 (0.48) |
| Tilt speed | deg/sec | 3.9 |
| Drawbar pull with load (at 1 mph/1.6km/h) | lbs (kg) | 207306 (93900) |
| Drawbar pull without load (at 1 mph/1.6km/h) | lbs (kg) | 118629 (53800) |
| Maximum drawbar pull with load | lbs (kg) | 249165 (113000) |
| Maximum drawbar pull without load | lbs (kg) | 118629 (53800) |
| Gradability with load (at 1 mph/1.6km/h) | % | 20 | 30 |
| Gradability without load (at 1 mph/1.6km/h) | % | 20 | 30 |
| Gradability with load | % | 31 | 31 |
| Gradability without load | % | 31 | 31 |
| Engine manufacturer/type | Cummins QSB6.7 | Cummins QSB6.7 |
| Engine output, in accordance with ISO 14396 | hp (kW) | 155 (116) |
| Engine torque | lb-ft/rpm (Nm/rpm) | 440/1500 (597/1500) | 440/1500 (597/1500) |
| Governor speed | rpm | 2300 |
| Number of cylinders/displacement | in³ (cm³) | 6/409 (6/6700) |
| Transmission | 3-speed autoshift |
| Working pressure for attachments | psi (bar) | 2800 (193) |
| Oil flow for attachments | gpm (l/min) | 26.4 (100) | 26.4 (100) |
### H190HD₂ - H360HD₂ MAST DIMENSIONS in. (mm)

<table>
<thead>
<tr>
<th></th>
<th>Overall Lowered Height</th>
<th>Overall Extended Height without Load Backrest Ext.</th>
<th>Full Free-Lift</th>
<th>Approx. Total Wgt. of Standard Equipped Truck w/o Load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H190HD₂ lb. (kg)</td>
</tr>
<tr>
<td><strong>2-STAGE NO FREE-LIFT (NO FL) VISTA®</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H190HD₂</td>
<td>147 (3751)</td>
<td>133 (3333)</td>
<td>N/A</td>
<td>26764 (12140)</td>
</tr>
<tr>
<td></td>
<td>183 (4651)</td>
<td>150 (3803)</td>
<td>N/A</td>
<td>27287 (12368)</td>
</tr>
<tr>
<td></td>
<td>212 (5401)</td>
<td>165 (4178)</td>
<td>N/A</td>
<td>27590 (12474)</td>
</tr>
<tr>
<td><strong>3-STAGE VISTA®</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H210HD₂</td>
<td>220 (5600)</td>
<td>120 (3045)</td>
<td>277 (7073)</td>
<td>36367 (16496)</td>
</tr>
<tr>
<td></td>
<td>236 (6000)</td>
<td>126 (3178)</td>
<td>293 (7430)</td>
<td>37249 (16896)</td>
</tr>
<tr>
<td></td>
<td>255 (6500)</td>
<td>132 (3345)</td>
<td>313 (7930)</td>
<td>38352 (17396)</td>
</tr>
<tr>
<td>H230HD₂</td>
<td>275 (7000)</td>
<td>139 (3511)</td>
<td>332 (8430)</td>
<td>39454 (17896)</td>
</tr>
</tbody>
</table>

### H230-280HD₂, MAST DIMENSIONS in. (mm)

<table>
<thead>
<tr>
<th></th>
<th>Overall Lowered Height</th>
<th>Overall Extended Height without Load Backrest Ext.</th>
<th>Full Free-Lift</th>
<th>Approx. Total Wgt. of Standard Equipped Truck w/o Load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H230HD₂ lb. (kg)</td>
</tr>
<tr>
<td><strong>2-STAGE NO FREE-LIFT (NO FL) VISTA®</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>H230HD₂</td>
<td>148 (3761)</td>
<td>143 (3628)</td>
<td>216 (5468)</td>
<td>31425 (14254)</td>
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<td></td>
<td>183 (4661)</td>
<td>161 (4078)</td>
<td>251 (6368)</td>
<td>31901 (14470)</td>
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<td></td>
<td>213 (5411)</td>
<td>176 (4453)</td>
<td>281 (7118)</td>
<td>32377 (14668)</td>
</tr>
<tr>
<td></td>
<td>244 (6205)</td>
<td>192 (4853)</td>
<td>312 (7918)</td>
<td>32774 (14866)</td>
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<tr>
<td><strong>3-STAGE VISTA®</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H250HD₂</td>
<td>220 (5600)</td>
<td>120 (3045)</td>
<td>277 (7073)</td>
<td>39494 (17914)</td>
</tr>
<tr>
<td></td>
<td>236 (6000)</td>
<td>126 (3178)</td>
<td>293 (7430)</td>
<td>40375 (18314)</td>
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<td>255 (6500)</td>
<td>132 (3345)</td>
<td>313 (7930)</td>
<td>41478 (18814)</td>
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<tr>
<td>H280HD₂</td>
<td>275 (7000)</td>
<td>139 (3511)</td>
<td>332 (8430)</td>
<td>42580 (19314)</td>
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</table>

### H300-360HD₂, MAST DIMENSIONS in. (mm)

<table>
<thead>
<tr>
<th></th>
<th>Overall Lowered Height</th>
<th>Overall Extended Height without Load Backrest Ext.</th>
<th>Full Free-Lift</th>
<th>Approx. Total Wgt. of Standard Equipped Truck w/o Load</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H300HD₂ lb. (kg)</td>
</tr>
<tr>
<td><strong>2-STAGE NO FREE-LIFT (NO FL) VISTA®</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H300HD₂</td>
<td>147 (3750)</td>
<td>144 (3641)</td>
<td>216 (5470)</td>
<td>37749 (17123)</td>
</tr>
<tr>
<td></td>
<td>183 (4650)</td>
<td>162 (4091)</td>
<td>251 (6370)</td>
<td>38382 (17410)</td>
</tr>
<tr>
<td></td>
<td>212 (5400)</td>
<td>176 (4466)</td>
<td>281 (7120)</td>
<td>39026 (17702)</td>
</tr>
<tr>
<td></td>
<td>244 (6203)</td>
<td>192 (4866)</td>
<td>312 (7920)</td>
<td>39509 (17921)</td>
</tr>
<tr>
<td><strong>3-STAGE VISTA®</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H330HD₂</td>
<td>173 (4400)</td>
<td>121 (3070)</td>
<td>240 (6080)</td>
<td>39476 (17906)</td>
</tr>
<tr>
<td></td>
<td>196 (5000)</td>
<td>129 (3270)</td>
<td>263 (6860)</td>
<td>39747 (18029)</td>
</tr>
<tr>
<td></td>
<td>236 (6000)</td>
<td>142 (3603)</td>
<td>303 (7680)</td>
<td>40201 (18235)</td>
</tr>
<tr>
<td>H360HD₂</td>
<td>275 (7000)</td>
<td>156 (3940)</td>
<td>342 (8660)</td>
<td>41096 (18641)</td>
</tr>
</tbody>
</table>
Model H190HD<sub>2</sub>: 19,000 lbs. at 24” (8,618 kg at 600 mm) load center.
Model H210HD<sub>2</sub>: 21,000 lbs. at 24” (9,525 kg at 600 mm) load center.

Rated capacities are for trucks equipped with:
- VISTA® mast to 212.0” (5400 mm) (H190-210HD<sub>2</sub>) maximum fork height
- 92.5” (2,350 mm) (H190-280HD<sub>2</sub>) carriage
- 48.0” (1,219 mm) (H190-280HD<sub>2</sub>) long forks as required

Contact your dealer for other capacity information.
HYSTER H230HD₂ - H280HD₂ LIFT TRUCK RATED CAPACITIES

Model H230HD₂: 23,000 lbs. at 24” (10,433 kg at 600 mm) load center.
Model H230HD₂S: 23,000 lbs. at 24” (10,433 kg at 600 mm) load center.
Model H250HD₂: 25,000 lbs. at 24” (11,340 kg at 600 mm) load center.
Model H280HD₂: 28,000 lbs. at 24” (12,701 kg at 600 mm) load center.

Rated capacities are for trucks equipped with:
- VISTA® mast to 213.0” (5,411 mm) (230-280HD₂) maximum fork height
- 92.5” (2,350 mm) (H190-280HD₂) carriage
- 48.0” (1,219 mm) (H190-280HD₂) long forks as required

Contact your dealer for other capacity information.

Conversion Factor: 1.0” = 25.4 mm; 1 lb = 0.45 kg
Model H300HD<sub>2</sub>: 30,000 lbs at 24” (13,608 kg at 600 mm) load center.
Model H330HD<sub>2</sub>: 33,000 lbs at 24” (14,969 kg at 600 mm) load center.
Model H360HD<sub>2</sub>: 36,000 lbs at 24” (16,329 kg at 600 mm) load center.

Rated capacities are for trucks equipped with:
- VISTA<sup>®</sup> mast to 212.0” (5400 mm) (H300-360HD<sub>2</sub>) maximum fork height
- 98.5” (2,502 mm) (H300-360HD<sub>2</sub>) carriage
- 72.0” (1,829 mm) (H300-360HD<sub>2</sub>) long forks as required

Contact your dealer for other capacity information.

<table>
<thead>
<tr>
<th>RATED LOAD VS. LOAD CENTER</th>
<th>U.S. CUSTOMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Sideshift Fork Positioning Carriage</strong></td>
<td></td>
</tr>
<tr>
<td><strong>RATED LOAD VS. LOAD CENTER</strong></td>
<td><strong>LOAD CENTER (IN)</strong></td>
</tr>
<tr>
<td><strong>H300HD</strong></td>
<td>35,000</td>
</tr>
<tr>
<td><strong>H330HD</strong></td>
<td>33,000</td>
</tr>
<tr>
<td><strong>H360HD</strong></td>
<td>30,000</td>
</tr>
</tbody>
</table>

| **Non-Sideshift Fork Positioning Carriage** | **RATED LOAD VS. LOAD CENTER** |
| **H300HD** | 35,000 | 10,000 |
| **H330HD** | 33,000 | 8,000 |
| **H360HD** | 30,000 | 6,000 |

| **Integral Sideshift Carriage/Apron Style Sideshifting Fork Positioning Carriage** | **U.S. CUSTOMARY** |
| **RATED LOAD VS. LOAD CENTER** | **LOAD CENTER (IN)** |
| **H300HD** | 35,000 | 10,000 |
| **H330HD** | 33,000 | 8,000 |
| **H360HD** | 30,000 | 6,000 |

| **Dual Function Sideshifting/Fork Positioning Carriage** | **U.S. CUSTOMARY** |
| **RATED LOAD VS. LOAD CENTER** | **LOAD CENTER (IN)** |
| **H300HD** | 35,000 | 10,000 |
| **H330HD** | 33,000 | 8,000 |
| **H360HD** | 30,000 | 6,000 |

**Conversion Factor:** 1.0” = 25.4 mm; 1 lb = 0.45 kg
### H190HD₂ - H360HD₂ Specifications

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A (in. (mm))</th>
<th>B (in. (mm))</th>
<th>C (in. (mm))</th>
<th>D (percent)</th>
<th>E (in. (mm))</th>
<th>F (in. (mm))</th>
<th>G (in. (mm))</th>
</tr>
</thead>
<tbody>
<tr>
<td>H190HD₂</td>
<td>116.8 (2967)</td>
<td>119.4 (3033)</td>
<td>72.3 (1837)</td>
<td>70.0%</td>
<td>25.7 (653)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H210HD₂</td>
<td>116.8 (2967)</td>
<td>119.4 (3033)</td>
<td>72.3 (1837)</td>
<td>70.0%</td>
<td>25.7 (653)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H230HD₂</td>
<td>116.8 (2967)</td>
<td>119.4 (3033)</td>
<td>72.3 (1837)</td>
<td>75.0%</td>
<td>25.7 (653)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H250HD₂</td>
<td>116.8 (2967)</td>
<td>119.4 (3033)</td>
<td>72.3 (1837)</td>
<td>75.0%</td>
<td>25.7 (653)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H280HD₂</td>
<td>116.8 (2967)</td>
<td>119.4 (3033)</td>
<td>72.3 (1837)</td>
<td>75.0%</td>
<td>25.7 (653)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H300HD₂</td>
<td>118.0 (2990)</td>
<td>120.6 (3064)</td>
<td>74.7 (1899)</td>
<td>86.9%</td>
<td>26.9 (684)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
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<tr>
<td>H330HD₂</td>
<td>118.0 (2990)</td>
<td>120.6 (3064)</td>
<td>74.7 (1899)</td>
<td>86.9%</td>
<td>26.9 (684)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
<tr>
<td>H360HD₂</td>
<td>118.0 (2990)</td>
<td>120.6 (3064)</td>
<td>74.7 (1899)</td>
<td>86.9%</td>
<td>26.9 (684)</td>
<td>31.8 (809)</td>
<td>46.5 (1181)</td>
</tr>
</tbody>
</table>

### Step Height

<table>
<thead>
<tr>
<th>MODEL</th>
<th>S1 (in. (mm))</th>
<th>S2 (in. (mm))</th>
<th>S3 (in. (mm))</th>
<th>S4 (in. (mm))</th>
</tr>
</thead>
<tbody>
<tr>
<td>H190HD₂</td>
<td>15.51 (394)</td>
<td>27.87 (708)</td>
<td>40.24 (1022)</td>
<td>52.60 (1336)</td>
</tr>
<tr>
<td>H210HD₂</td>
<td>15.51 (394)</td>
<td>27.87 (708)</td>
<td>40.24 (1022)</td>
<td>52.60 (1336)</td>
</tr>
<tr>
<td>H230HD₂</td>
<td>15.51 (394)</td>
<td>27.87 (708)</td>
<td>40.24 (1022)</td>
<td>52.60 (1336)</td>
</tr>
<tr>
<td>H250HD₂</td>
<td>15.51 (394)</td>
<td>27.87 (708)</td>
<td>40.24 (1022)</td>
<td>52.60 (1336)</td>
</tr>
<tr>
<td>H280HD₂</td>
<td>15.51 (394)</td>
<td>27.87 (708)</td>
<td>40.24 (1022)</td>
<td>52.60 (1336)</td>
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<tr>
<td>H300HD₂</td>
<td>18.07 (420)</td>
<td>30.09 (764)</td>
<td>42.11 (1070)</td>
<td>54.13 (1375)</td>
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<tr>
<td>H330HD₂</td>
<td>18.07 (420)</td>
<td>30.09 (764)</td>
<td>42.11 (1070)</td>
<td>54.13 (1375)</td>
</tr>
<tr>
<td>H360HD₂</td>
<td>18.07 (420)</td>
<td>30.09 (764)</td>
<td>42.11 (1070)</td>
<td>54.13 (1375)</td>
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</tbody>
</table>

### Carriage

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Standard</th>
<th>FP**</th>
<th>Sideshift</th>
<th>SSFP***</th>
<th>DFSSFP***</th>
</tr>
</thead>
<tbody>
<tr>
<td>H190-210HD₂ (2-Stage)</td>
<td>28.5 (725)</td>
<td>30.5 (775)</td>
<td>30.9 (785)</td>
<td>30.9 (785)</td>
<td>32.9 (836)</td>
</tr>
<tr>
<td>H190-210HD₂ (3-Stage)</td>
<td>34.6 (885)</td>
<td>34.8 (885)</td>
<td>35.9 (911)</td>
<td>35.9 (911)</td>
<td>N/A</td>
</tr>
<tr>
<td>H230-280HD₂ (2-Stage)</td>
<td>29.9 (760)</td>
<td>31.9 (810)</td>
<td>32.2 (819)</td>
<td>32.2 (819)</td>
<td>33.9 (861)</td>
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<tr>
<td>H230-280HD₂ (3-Stage)</td>
<td>34.6 (885)</td>
<td>34.8 (885)</td>
<td>35.9 (911)</td>
<td>35.9 (911)</td>
<td>N/A</td>
</tr>
<tr>
<td>H300-360HD₂ (2-Stage)</td>
<td>33.9 (862)</td>
<td>33.9 (862)</td>
<td>35.3 (896)</td>
<td>35.3 (896)</td>
<td>37.4 (949)</td>
</tr>
<tr>
<td>H300-360HD₂ (3-Stage)</td>
<td>36.9 (937)</td>
<td>36.9 (937)</td>
<td>39.8 (1012)</td>
<td>39.8 (1012)</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*FP - Fork Positioner  
**SSFP - Sideshift Fork Positioner  
***DFSSFP - Dual Function Sideshift Fork Positioner
STANDARD EQUIPMENT
Hyster H190-360HD² trucks are equipped with:
- low-emissions, Cummins turbo-charged diesel engine
- 70 amp alternator
- overhead exhaust
- Hyster 3-speed autoshift transmission
- telescopic, tilt steering wheel
- planetary drive axle
- air brakes with air system drier
- 212.0" (5,400 mm) 2-stage no FL VISTA® mast
- 92.5" (2,350 mm) (H190-280HD₂), 98.5" (2,502 mm) (H300-360HD₂) pin-type carriage
- 48.0" (1,219 mm) (H190-280HD₂), 72.0" (1,829 mm) (H300-360HD₂) forks
- 2 brake w/backup lights
- puller engine fan
- MONOTROL® pedal
- side view mirrors
- horn
- operator restraint system
- 12 volt auxiliary power source
- overhead guard
- operating manual
- 15˚ forward / 12˚ back mast tilt
- operator compartment features:
  - seat-side hydraulic control
  - independently adjustable armrest
  - multifunction display panel
  - wide angle mirrors
  - manual operator compartment side tilt for service access
  - isolated mounting
  - handrails for operator entry and exit
  - mechanical full suspension vinyl seat
  - floormat
- load sensing steering
- parts manual
  - 10.00 x 20-20 PR premium SuperLug off road tires (190-280HD₃)
  - 12.00 x 20-16 PR premium SuperLug off road tires (300-360HD₃)
- integral air precleaner
- U.L. Classification D

OPTIONAL EQUIPMENT INCLUDES:
- lever directional control
- spinner knob
- solid or radial tires
- wet disc brakes
- Premium ZF WG161 3 speed Autoshift transmission
- High performance Power on Demand hydraulic system
- Hydraulic protection system
- Unconditional travel speed limiter
- Loaded travel speed limiter
- ComforCab II features: electric wiper & windshield washers-front, rear & top; heater & defroster; 3-speed fan; additional circulation fan; intermittent front wiper; tinted, curved glass; steel frame glass doors; door retainer; dome light; 12 volt auxiliary power source
- Cab only options: air conditioning with sunshade, reading light, rear locking console, sunshade
- cloth mechanical suspension seat (w/cab only)
- vinyl air suspension seat
- cloth air suspension seat (cab only)
- raintop (for non-cab trucks)
- 0.66 gallon (2.5 liter) piston type accumulator
- 20.5˚ forward / 7˚ back mast tilt (2-stage)
- 15˚ forward / 10˚ back mast tilt (2 & 3-stage)
- 5˚ forward / 6˚ back mast tilt (3-stage)
- various light packages
- turn signals
- amber strobe light
- back-up alarm
- exhaust aspirated air precleaner
- SyKlone Precleaner
- variable mast heights
- 3, 4, 5 and 6 function valve and hose groups
- joystick hydraulic control
- hydraulic control lever options
- Carriage options: integral pin-type fork positioner with simultaneous or individual fork control; pin-type integral sideshift; integral pin-type dual function sideshift fork positioner; apron style sideshift fork positioner with simultaneous or individual fork control
- polished and tapered forks (H190-280HD₃)
- variable fork lengths
- powered operator compartment side tilt for service access
- Radio preparation package
- steer wheel lug protection rings
MASTS
Mast with nested channels provide excellent visibility of the attachment and load. Pre-lubed and sealed load rollers resist load forces.

CARRIAGES
Pin-type; integral pin-type fork positioner with simultaneous or individual fork control; pin-type integral sideshift; integral pin-type dual function sideshift fork positioner; apron style sideshift fork positioner with simultaneous or individual fork control.

Overall width: 98.11” (2,492 mm) for the H190-280HD₂. Overall width for the H300-360HD₂ is 102.62” (2,667 mm)

Minimum inside-to-inside fork spacing - model and attachment dependent: ranges from 2.9” - 5.5” (75 mm - 140 mm)

Maximum outside-to-outside fork spacing - model and attachment dependent: ranges from 85.6” - 95.2” (2,176 mm - 2,420 mm)

FORKS
2.5” x 8.0” x 48.0” - 60.0” (64 x 203 x 1,219 - 1,524 mm) pallet forks for H190-210HD₂
2.5” x 8.0” x 48.0” - 72.0” (64 x 203 x 1,219 - 1,829 mm) pallet forks for H190HD₂
3.0” x 8.0” x 48.0” - 96.0” (76 x 203 x 1,219 - 2,438 mm) pallet forks for H190-280HD₂
3.0” x 8.0” x 48.0” - 72.0” (76 x 203 x 1,219 - 1,829 mm) polished and tapered forks for H190-280HD₂
2.75” x 8.0” x 48.0” - 96.0” (70 x 203 x 1,219 - 2,438 mm) dual function sideshifting fork positioner forks for H190-280HD₂
3.5” x 8.0” x 72.0” - 96.0” (89 x 203 x 1,829 - 2,438 mm) pallet forks for H300-360HD₂

ENGINE
Cummins QSB 6.7Liter -155 hp Tier 3 compliant engine features:
• 4 cycle; 6 cylinders; 409 cu. in. (6702 cm³) displacement
• Maximum torque is 440 ft.lbs. (597 N•m) at 1,500 RPM
• Turbocharged and intercooled for maximum efficiency
• U.L. Classification D
• 4.02” (102 mm) bore
• 4.72” (120 mm) stroke
• Engine compartment features gull-wing doors for easy service access

TRANSMISSION
• Exclusive Hyster TE-10 three-speed, fully-reversing powershift transmission produces smooth shifting, precise inching and fast acceleration
• Cushioned clutch lock-up provides smooth shifting and dampens drive line shock loads
• Standard steer column mounted lever provides the operator the option of manual shift capabilities
• A dash-mounted indicator light displays transmission mode status
• A premium ZF WG161 transmission option is available for additional travel speed, drawbar pull, or for use in rugged applications

HYDRAULIC SYSTEM
• 3,050 PSI (21.0 mPa) hydraulic lift system; 2,400 PSI (16.5 mPa) relief pressure in all auxiliary valve variations
• Electro proportional hydraulic control valve sections allow precise metering of hydraulic functions
• “O” Ring Face Seal hydraulic fittings are used throughout the hydraulic system
STEERING SYSTEM
- The steer axle is a casting with a transverse mounted double acting cylinder, 2 non-adjustable tie rods, 2 spindles, taper roller bearings and 2 wheel hubs. The axle is pin mounted to the frame.
- Designed for high loads and long life, the one piece axle frame carries the axle loads and provides mounting for the spindles and cylinder.
- Axle spindles are supported by tapered roller bearings and sealed to prevent contamination entry or loss of grease.
- Eight high tensile bolts secure the steer cylinder providing large wheel angles and greater maneuverability. Excessive external force on the frame is avoided using this design.
- No steering linkage adjustments are required. Lubricating fittings on the spindle and tie rod pins are the only regular maintenance points.
- Load sensed steering provides low steering effort and good performance at all engine speeds.

DRIVE AXLE
Rugged Hyster drive axle features full-floating design. Wheel hubs rotate on large tapered roller bearings. Non-adjustable tie rod ends provide maximum life.

BRAKES
- Standard “S-cam”-style, power-assist air brakes provide smooth, reliable braking with minimal effort.
- A dedicated compressor air filter and air system dryer provides clean, unrestricted air supply to the braking system.
- Non-asbestos brake linings.
- An optional oil cooled wet disc brake system is also available to greatly extend brake system life.

OPERATOR AREA
- Instruments are in the operator’s line of sight.
- Ergonomically designed hydraulic controls and high/low range control lever are within easy reach.
- Three steps and handgrips provide easy access to operator compartment.
- Angled floor plate and pedals are positioned for operator comfort.
- Standard MONOTROL® pedal controls engine speed and truck direction, freeing operator hands to operate steering and hydraulic controls.
- Telescopic, tilt steer column.
- Supportive mechanical full-suspension seat adjusts 8-inches (200 mm) for operator comfort.
- Several air suspension seat options are available.
- Steel overhead guard frame provides excellent high-stacking visibility.
- Operator Presence System (OPS) with complete hydraulic lock out requires the operator to be in the normal operating position before any travel or movement of the mast, tilt, carriage, and attachment can be initiated and that the travel or movement of the mast, tilt, carriage, and attachment is locked out when the operator leaves the seat for more than 2-3 seconds.
- Optional light groups aid visibility in low-lighted areas.
- Optional ComforCab II features: tinted, curved glass; circulation fan; heater & defroster; electric wiper and windshield washer front, rear, top; intermittent front wiper; door retainer; 3 speed fan; 12 volt auxiliary power source; dome light, with many additional options to enhance comfort and productivity.

Special attachments, equipment or accessories not listed above may be available through Applications Engineering for specific application requirements.