



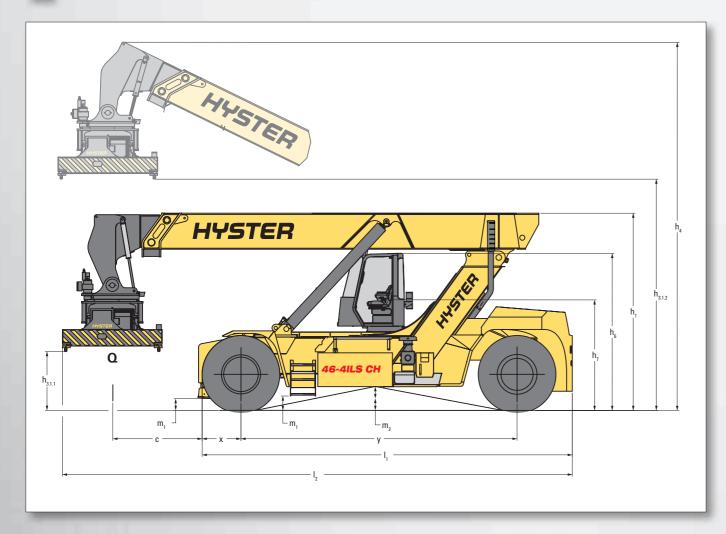




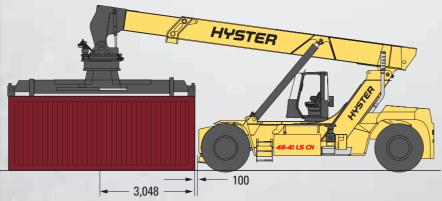
# RS46 SERIES TECHNICAL GUIDE

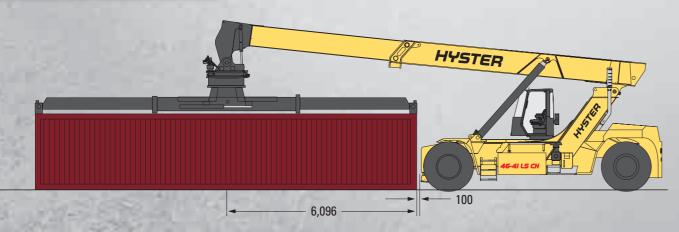
## > TRUCK DIMENSIONS

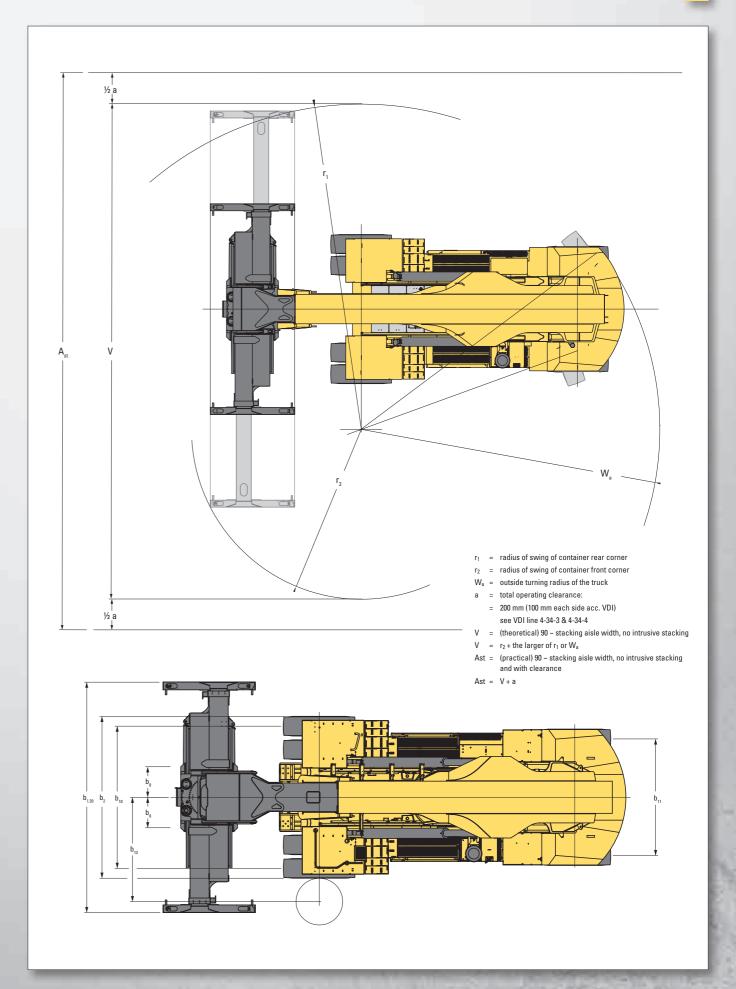
## TRUCK DIMENSIONS <



| MAXIMUM CAPACITY PICKING LENGTHWISE |        |        |  |  |  |  |  |  |  |  |  |
|-------------------------------------|--------|--------|--|--|--|--|--|--|--|--|--|
| MODEL                               | 20′    | 40′    |  |  |  |  |  |  |  |  |  |
| MODEL                               | kg     | kg     |  |  |  |  |  |  |  |  |  |
| RS46-29                             | 32,000 | 14,000 |  |  |  |  |  |  |  |  |  |
| RS46-33                             | 35,000 | 16,000 |  |  |  |  |  |  |  |  |  |
| RS46-36                             | 42,000 | 20,000 |  |  |  |  |  |  |  |  |  |
| RS46-41S                            | 44,900 | 26,300 |  |  |  |  |  |  |  |  |  |
| RS46-41L                            | 44,900 | 26,300 |  |  |  |  |  |  |  |  |  |
| RS46-41LS                           | 44,900 | 30,300 |  |  |  |  |  |  |  |  |  |
| RS46-41XLS                          | 44,900 | 30,300 |  |  |  |  |  |  |  |  |  |





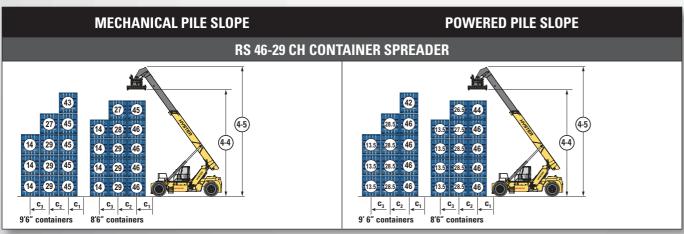


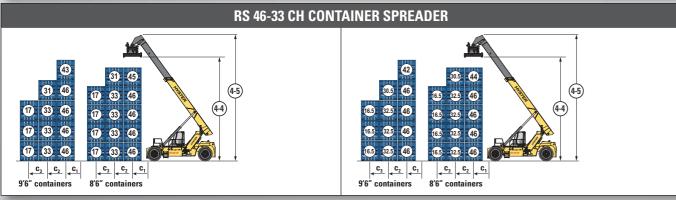
#### > RATED CAPACITIES AND STACKING HEIGHTS

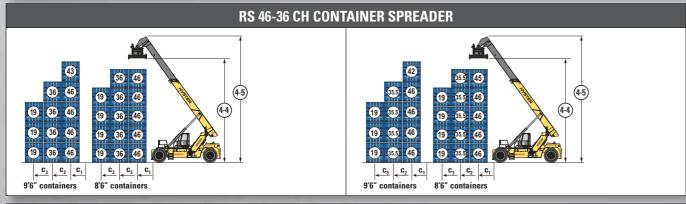
(shown in 1,000 kg.)

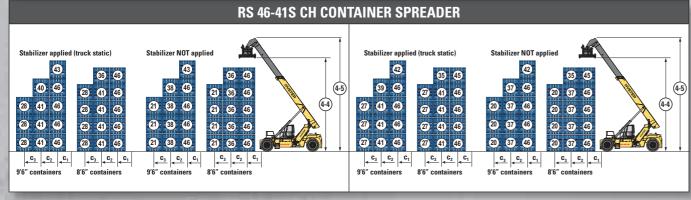
#### RATED CAPACITIES AND STACKING HEIGHTS

(shown in 1,000 kg.)

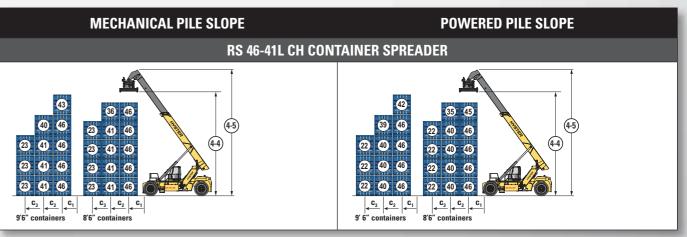


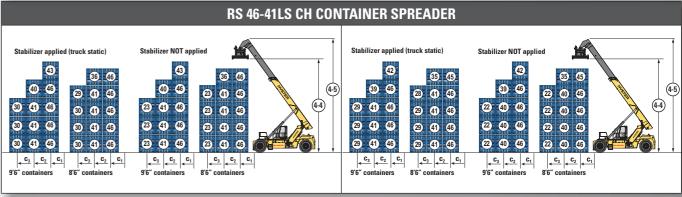


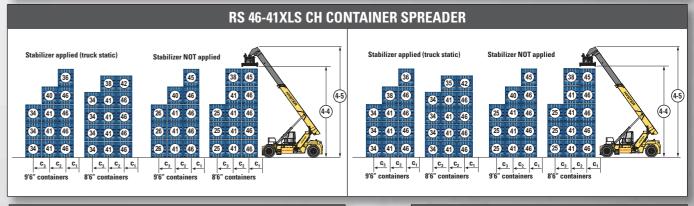


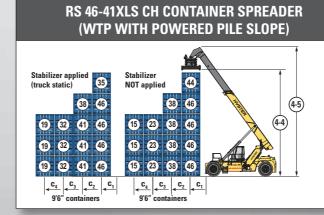


| ı | C1     | U²2    | (Fo    |  |
|---|--------|--------|--------|--|
|   | 1865mm | 3815mm | 6315mm | Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyre. |









| (MECHANICAL PILE SLOPE)                   |
|---|
| Stabilizer applied (truck static)  HVSTER |
| 33 46                                     |
| r <sub>2</sub> r <sub>1</sub>             |

**HANDLING IN SECOND RAIL** 

| C1 C2  |        | C3     | C4     |  |  |
|--------|--------|--------|--------|--|--|
| 1865mm | 3815mm | 6315mm | 8750mm |  |  |

Note: All load centres c1, c2, c3, c4 are taken from the front face of the (front) tyres.

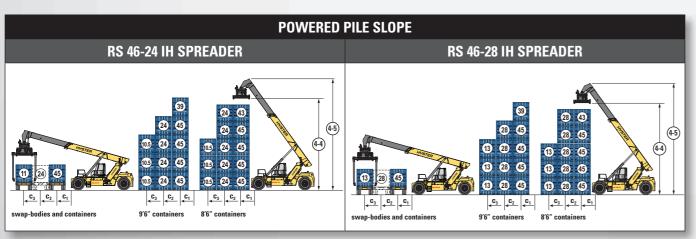
| r1     | r2     |
|--------|--------|
| 1865mm | 6400mm |
|        |        |

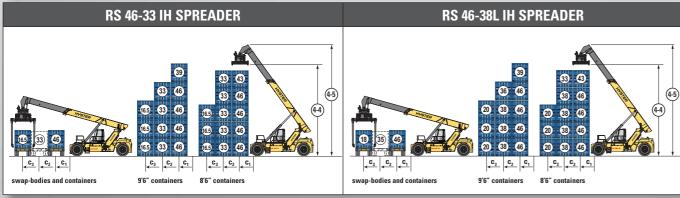
#### RATED CAPACITIES AND STACKING HEIGHTS

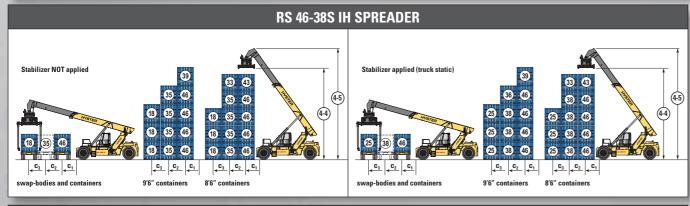
(shown in 1,000 kg.)

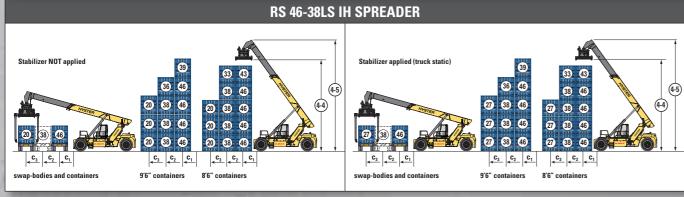
#### RATED CAPACITIES AND STACKING HEIGHTS <

(shown in 1,000 kg.)



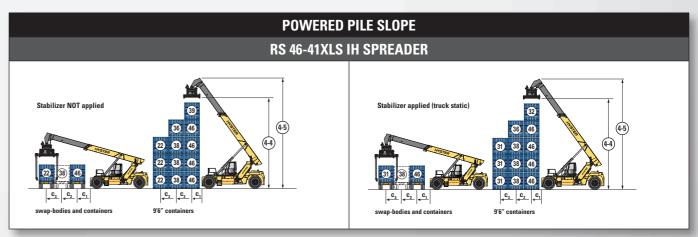




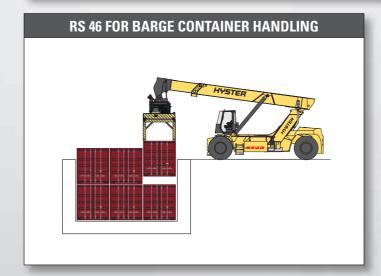


| i | <b>C</b> 1 | C2     | <b>C</b> 3 |
|---|------------|--------|------------|
| 1 | 1865mm     | 3815mm | 6315mm     |

Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres.



| RS 46 FOR STEEL LOAD HANDLING |                         |  |  |  |  |  |  |  |  |
|-------------------------------|-------------------------|--|--|--|--|--|--|--|--|
| RS 46 FOR COIL HANDLING       | RS 46 FOR SLAB HANDLING |  |  |  |  |  |  |  |  |
| HVSTER HVSTER                 | HVSTER                  |  |  |  |  |  |  |  |  |



| C1     | C <sup>2</sup> | C3     |
|--------|----------------|--------|
| 1865mm | 3815mm         | 6315mm |

Note: All load centres c1, c2, c3 are taken from the front face of the (front) tyres.

## **RS 46-29, RS 46-33, RS 46-36, RS 46-41S CONTAINER HANDLERS**

|   |             | 1-1            | Manufacturer   |                   |      | нус           | TER    | нус           | TER         | нуѕ           | TER    | нус           | TER    |
|---|-------------|----------------|--|-------------------|------|---------------|--------|---------------|-------------|---------------|--------|---------------|--------|
| ı | ŀ           | 1-2            | Model designation  |                   |      | RS 46-        |        | RS 46-        |             | RS 46-36 CH   |        | RS 46-41S CH  |        |
|   | ŀ           | 1-3            | Drive  |                   |      | Die           |        |               | sel         | Diesel        |        | Diesel        |        |
|   | i           | 1-4            | Operator type  |                   |      | Seated        |        | Seated        |             | Seated        |        | Seated        |        |
| 1 | ŀ           | 1-5-1          | Load capacity at load centre distance c <sub>1</sub> without/with stabiliser   | $Q_1$             | kg   | 46,000        | n/a    | 46,000        | n/a         | 46,000        | n/a    | 46,000        | 46,000 |
| 1 | ا بـ        | 1-5-2          | Load capacity at load centre distance c <sub>2</sub> without/with stabiliser   | $\Omega_2$        | kg   | 29,000        | n/a    | 33,000        | n/a         | 36,000        | n/a    | 38,000        | 41,000 |
| 1 | GENERAL     | 1-5-3          | Load capacity at load centre distance c <sub>3</sub> without/with stabiliser   | $\Omega_3$        | kg   | 14,000        | n/a    | 17,000        | n/a         | 19,000        | n/a    | 21,000        | 28,000 |
| 1 | 흥           | 1-6-1          | Load centre distance c <sub>1</sub> (1)  | C <sub>1</sub>    | mm   | 1,8           | 65     | 1,8           | 865         | 1,8           | 865    | 1,8           | 865    |
| 1 | Ī           | 1-6-2          | Load centre distance c <sub>2</sub> (1)  | C <sub>2</sub>    | mm   | 3,8           | 15     | 3,8           | 315         | 3,8           | 315    | 3,8           | 315    |
|   | Ì           | 1-6-3          | Load centre distance c <sub>3</sub> (1)  | C3                | mm   | 6,3           | 115    | 6,3           | 315         | 6,3           | 315    | 6,3           | 315    |
|   | Ī           | 1-8            | Load distance, ctr of drive axle to face of front Tyres/front of stabiliser  | х                 | mm   | 835           | n/a    | 835           | n/a         | 930           | n/a    | 930           | 1030   |
| 1 |             | 1-9            | Wheelbase  | у                 | mm   | 6,2           | .00    | 6,2           | 200         | 6,2           | 200    | 6,2           | 200    |
| 1 | Ī           | 1-10           | Stacking height at first row (number x container height)   |                   | #    | 5 x 9         | 9′ 6″  | 5 x 9         | 9′ 6″       | 5 x 9         | 9′ 6″  | 5 x 9         | 9′ 6″  |
|   | ╘           | 2-1            | Service weight   |                   | kg   | 68,           | 500    | 72,           | 200         | 79,           | 300    | 83,           | 600    |
| П | WEIGHT      | 2-2-1          | Axle loading $% \left( 1\right) =\left( 1\right) +\left( 1\right$ |                   | kg   | 101,350       | 13,150 | 101,100       | 17,100      | 103,200       | 22,100 | 105,400       | 24,200 |
|   | >           | 2-3-1          | Axle loading $\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$   |                   | kg   | 35,300        | 33,200 | 35,000        | 37,200      | 36,500        | 42,800 | 38,700        | 44,900 |
| н |             | 3-1            | Tyre type  |                   |      | Pneui         | matic  | Pneu          | matic       | Pneu          | matic  | Pneu          | matic  |
| 1 | Į           | 3-2            | Tyre size, front   |                   |      | 18.00-25 40PR |        | 18.00-2       | 5 40PR      | 18.00-3       | 3 36PR | 18.00-33 36PR |        |
| 1 | WHEELS      | 3-3            | Tyre size, rear  |                   |      | 18.00-25 40PR |        | 18.00-25 40PR |             | 18.00-33 36PR |        | 18.00-33 36PR |        |
| 1 | ੋਂ          | 3-5            | Wheels, number front / rear (X = driven wheels)  |                   |      | x4 / 2        |        | x4/2          |             | x4 / 2        |        | x4/2          |        |
| н | ļ           | 3-6            | Tread, front   | b <sub>10</sub>   | mm   | 3,7           | 03     | 3,7           | 703         | 3,7           | '03    | 3,7           | 03     |
| ш | 4           | 3-7            | Tread, rear  | b <sub>11</sub>   | mm   | 3,0           | 160    | 3,0           | 060         | 3,0           | 160    | 3,0           | 160    |
| 1 |             | 4-1            | Boom angle minimum / maximum   |                   | (°)  | 0/            | 59     | 0 / 59        |             | 0 / 59        |        | 0 / 59        |        |
| 1 | ļ           | 4-2            | Height of boom lowered   | h <sub>1</sub>    | mm   | 4,700         |        | 4,700         |             | 4,795         |        | 4,795         |        |
| 1 | ļ           | 4-4-1          | Lift height at load centre c <sub>1</sub> (2)  | h <sub>3.1</sub>  | mm   | 15,260        |        | 15,260        |             | 15,           | 355    | 15,           | 355    |
| ı | -           | 4-4-2          | Lift height at load centre c <sub>2</sub> (2)  | h <sub>3.2</sub>  | mm   | 13,850        |        |               | 850         |               | 945    |               | 945    |
| 1 | -           | 4-5            | Height, boom extended  | h <sub>4</sub>    | mm   | 18,110        |        | 18,110        |             | 18,205        |        |               | 205    |
| н | -           | 4-7            | Height of overhead guard (cabin)   | h <sub>6</sub>    | mm   | 3,7           |        | 3,720         |             |               | 315    |               | 315    |
| 1 | }           | 4-8            | Seat height to SIP (3)   | h <sub>7</sub>    | mm   | 2,5           |        | 2,555         |             | 2,650         |        | 2,650         |        |
| 1 | ွှ          | 4-15           | Height under Twistlock - lowered (2)   | h <sub>13</sub>   | mm   | 1,3           |        | 1,345         |             |               |        |               | 140    |
| н | MENSIONS    | 4-19           | Overall length   | l <sub>1</sub>    | mm   | 8,3           |        | 8,360         |             | 8,650         |        | -             | 750    |
| 1 |             | 4-20<br>4-21-2 | Overall length including boom retracted  Overall width across all of truck   | l <sub>2</sub>    | mm   | 11,8          |        | 11,873        |             | 12,           |        |               | 073    |
| П | ੂ           | 4-21-3         | Overall width across spreader 20'  | b <sub>2</sub>    | mm   | 4,2<br>6,1    |        | 4,2<br>6,1    |             | 4,2           | 00     | 4,2           | 00     |
| ш | ŀ           | 4-21-4         | Overall width across spreader 40'  | b <sub>1.20</sub> | mm   | 12,2          |        |               | 200         |               | 200    | 12,           |        |
| п | ŀ           | 4-31           | Ground clearance, lowest point   | m <sub>1</sub>    | mm   | 28            |        | -             | 35          |               | )4     |               | 50     |
| н | }           | 4-32           | Ground clearance, centre or wheelbase  | m <sub>2</sub>    | mm   | 43            |        |               | 37          |               | 32     |               | 32     |
| н | ŀ           | 4-34-3         | Aisle width: 20' container (5) (6)   | Ast <sub>20</sub> | mm   | 12,0          |        |               | 639         |               | 330    | 13,           |        |
| н | -           | 4-34-4         | Aisle width: 40' container (5) (6)   | Ast <sub>40</sub> | mm   | 14,4          |        |               | 403         |               | 620    |               | 620    |
| П | ŀ           | 4-35           | Outside turning radius   | Wa                | mm   | 8,4           |        | 8,4           |             |               | 200    |               | 200    |
|   |             | 4-36           | Internal turning radius  | b <sub>13</sub>   | mm   | 1,5           |        |               | 1,500 2,000 |               |        | -             | 100    |
|   | 병           | 5-1            | Travel speed with / without load   |                   | km/h | 20            | 22     | 20            |             |               | 23     | 21            | 23     |
|   | A<br>N      | 5-2            | Lifting speed with / without load  |                   | m/s  | 0.28          | 0.48   | 0.28          | 0.48        | 0.28          | 0.48   | 0.28          | 0.48   |
|   | PERFORMANCE | 5-3            | Lowering speed with / without load   |                   | m/s  | 0.46          | 0.45   | 0.46          | 0.45        | 0.46          | 0.45   | 0.46          | 0.45   |
|   | 뿝           | 5-7            | Gradeability - 1.6 km/h, with / without load (7)   |                   | %    | 26            | 35     | 25            | 35          | 23            | 33     | 21            | 32     |

<sup>(1)</sup> From face of front tyres. Deduct 100 mm for loadcentre from front side of Stabilizer when applicable

## RS 46-41L, RS 46-41LS, RS46-41XLS CONTAINER HANDLERS

| < |
|---|

|             | 1-1    | Manufacturer  |                   |      | пло                    | TER        | пло                     | TER              | HYS                   | TED    |
|-------------|--------|---|-------------------|------|------------------------|------------|-------------------------|------------------|-----------------------|--------|
|             | 1-2    |   |                   |      |                        |            |                         |                  |                       |        |
|             | 1-3    | Model designation   |                   |      | RS 46-41L CH<br>Diesel |            | RS 46-41LS CH<br>Diesel |                  | RS 46-41XLS CH Diesel |        |
|             | 1-4    | Drive   |                   |      |                        |            |                         |                  |                       | ted    |
|             | 1-5-1  | Operator type   | 0                 | lea. | Seated                 |            | Seated                  |                  | 46,000                |        |
|             | 1-5-2  | Load capacity at load centre distance c <sub>1</sub> without/with stabiliser  | Q <sub>1</sub>    | kg   | 46,000                 | n/a        | 46,000<br>41,000        | 46,000<br>41,000 | 41,000                | 46,000 |
| ERAL        | 1-5-3  | Load capacity at load centre distance c <sub>2</sub> without/with stabiliser  | Q <sub>2</sub>    | kg   | 41,000                 | n/a<br>n/a | ,                       |                  | 26,000                | 41,000 |
| GENERAL     | 1-6-1  | Load capacity at load centre distance c <sub>3</sub> without/with stabiliser  Load centre distance c <sub>1</sub> (1) | Ω <sub>3</sub>    | kg   | 23,000                 |            | 23,000 30,000<br>1,865  |                  |                       |        |
|             | 1-6-2  | Load centre distance c; (1)   | C <sub>1</sub>    | mm   |                        |            |                         | 315              | 1,865<br>3,815        |        |
|             | 1-6-3  | Load centre distance c <sub>3</sub> (1)   | C <sub>3</sub>    | mm   | 3,815<br>6,315         |            | 6,3                     |                  | -                     | 15     |
|             | 1-8    | Load distance, ctr of drive axle to face of front Tyres/front of stabiliser   | X                 | mm   | 930                    | n/a        | 930                     | 1030             | 930                   | 1030   |
|             | 1-9    | Wheelbase   | у                 | mm   | 6,7                    |            | 6,7                     |                  | 7,5                   |        |
|             | 1-10   | Stacking height at first row (number x container height)  | 7                 | #    | 5 x 9                  |            | 5 x 9                   |                  |                       | 3′ 6″  |
|             | 2-1    | Service weight  |                   | kg   | 82,                    |            | 84,                     |                  | 84,                   |        |
| WEIGHT      | 2-2-1  | Axle loading with load, front / rear at c <sub>1</sub>  |                   | kg   | 103,400                | 25,200     | 105,600                 | 25,000           | 103,350               | 27,300 |
| Š           | 2-3-1  | Axle loading without load, front / rear at c <sub>1</sub>   |                   | kg   | 38,200                 | 44,400     | 40,400                  | 44,200           | 41,300                | 43,350 |
|             | 3-1    | Tyre type   |                   | 3    | Pneu                   | -          |                         | matic            | Pneu                  |        |
|             | 3-2    | Tyre size, front  |                   |      | 18.00-3                | 3 36PR     | 18.00-33 36PR           |                  | 18.00-3               | 3 36PR |
| ELS         | 3-3    | Tyre size, rear   |                   |      | 18.00-3                | 3 36PR     | 18.00-33 36PR           |                  | 18.00-33 36PR         |        |
| WHEELS      | 3-5    | Wheels, number front / rear (X = driven wheels)   |                   |      | x4/2                   |            | x4/2                    |                  | x4 / 2                |        |
|             | 3-6    | Tread, front  | b <sub>10</sub>   | mm   | 3,703                  |            | 3,703                   |                  | 3,703                 |        |
|             | 3-7    | Tread, rear   | b <sub>11</sub>   | mm   | 3,0                    | 160        | 3,0                     | 060              | 3,0                   | 60     |
|             | 4-1    | Boom angle minimum / maximum  |                   | (°)  | 0 /                    | 59         | 0 /                     | 59               | 3/                    | 58     |
|             | 4-2    | Height of boom lowered  | h <sub>1</sub>    | mm   | 4,7                    | 95         | 4,795                   |                  | 5,4                   | 57     |
|             | 4-4-1  | Lift height at load centre c <sub>1</sub> (2)   | h <sub>3.1</sub>  | mm   | 15,355                 |            | 15,355                  |                  | 15,                   | 225    |
|             | 4-4-2  | Lift height at load centre c <sub>2</sub> (2)   | h <sub>3.2</sub>  | mm   | 13,                    | 13,945     |                         | 945              | 14,                   | 158    |
|             | 4-5    | Height, boom extended   | h <sub>4</sub>    | mm   | 18,205                 |            | 18,205                  |                  | 18,                   | 420    |
|             | 4-7    | Height of overhead guard (cabin)  | h <sub>6</sub>    | mm   | 3,815                  |            | 3,815                   |                  | 3,815                 |        |
|             | 4-8    | Seat height to SIP (3)  | h <sub>7</sub>    | mm   | 2,650                  |            | 2,650                   |                  | 2,650                 |        |
|             | 4-15   | Height under Twistlock - lowered (2)  | h <sub>13</sub>   | mm   | 1,4                    | 140        | 1,440                   |                  | 1,835                 |        |
| ONS         | 4-19   | Overall length  | l <sub>1</sub>    | mm   | 9,1                    | 50         | 9,250                   |                  | 10,050                |        |
| IMENSIONS   | 4-20   | Overall length including boom retracted   | l <sub>2</sub>    | mm   | 12,                    | 573        | 12,                     | 573              | 13,613                |        |
|             | 4-21-2 | Overall width across all of truck   | b <sub>2</sub>    | mm   | 4,2                    | 200        | 4,2                     | 200              | 4,2                   | :00    |
|             | 4-21-3 | Overall width across spreader 20'   | b <sub>1.20</sub> | mm   | 6,1                    | 00         | 6,1                     | 00               | 6,100                 |        |
|             | 4-21-4 | Overall width across spreader 40'   | b <sub>1.40</sub> | mm   | 12,                    |            |                         | 200              |                       | 200    |
|             | 4-31   | Ground clearance, lowest point  | m <sub>1</sub>    | mm   | 30                     |            |                         | 50               |                       | 50     |
|             | 4-32   | Ground clearance, centre or wheelbase   | m <sub>2</sub>    | mm   |                        | 32         |                         | 32               |                       | 32     |
|             | 4-34-3 | Aisle width: 20' container (5) (6)  | Ast <sub>20</sub> | mm   | 13,                    |            |                         | 430              | 14,                   |        |
|             | 4-34-4 | Aisle width: 40' container (5) (6)  | Ast <sub>40</sub> | mm   | 14,                    |            | 14,                     |                  | 15,                   |        |
|             | 4-35   | Outside turning radius  | W <sub>a</sub>    | mm   | 9,3                    |            |                         | 800              | 10,                   |        |
|             | 4-36   | Internal turning radius   | b <sub>13</sub>   | mm   |                        | 2,400      |                         | 100              | 2,975                 |        |
| PERFORMANCE | 5-1    | Travel speed with / without load  |                   | km/h | 21                     | 23         | 21                      | 23               | 21                    | 23     |
| RMA         | 5-2    | Lifting speed with / without load   |                   | m/s  | 0.28                   | 0.48       | 0.28                    | 0.48             | 0.28                  | 0.48   |
| ERF         | 5-3    | Lowering speed with / without load  |                   | m/s  | 0.46                   | 0.45       | 0.46                    | 0.45             | 0.46                  | 0.45   |
|             | 5-7    | Gradeability - 1.6 km/h, with / without load (7)  |                   | %    | 21                     | 32         | 21                      | 32               | 21                    | 32     |

<sup>(1)</sup> From face of front tyres. Deduct 100 mm for loadcentre from front side of Stabilizer when applicable

<sup>(2)</sup> For CH models only: With optional P(owered) P(ile) S(lope) function: deduct 310 mm

<sup>(3)</sup> Full suspension seat in depressed position

<sup>(5)</sup> These data are with the container carried 500 mm in front of the wheels (loadcenter 1720 mm)

<sup>(6)</sup> Stacking aisle width is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.

<sup>(7)</sup> Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

<sup>(2)</sup> For CH models only: With optional P(owered) P(ile) S(lope) function: deduct 310 mm

<sup>(3)</sup> Full suspension seat in depressed position

<sup>(5)</sup> These data are with the container carried 500 mm in front of the wheels (loadcenter 1720 mm)

<sup>(6)</sup> Stacking aisle width is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.

<sup>(7)</sup> Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

## **RS** 46-24, RS 46-28, RS 46-33, RS 46-38L INTERMODAL HANDLERS

|             |                |  | ī                 |      |         |                            |         |               |             |        |               |        |
|-------------|----------------|--|-------------------|------|---------|----------------------------|---------|---------------|-------------|--------|---------------|--------|
|             | 1-1            | Manufacturer   |                   |      | HYS     |                            |         | TER           |             | TER    | HYS           |        |
| ı           | 1-2            | Model designation  |                   |      | RS 46-  |                            | RS 46   |               | RS 46-33 IH |        | RS 46-38L IH  |        |
|             | 1-3            | Drive  |                   |      |         | Diesel                     |         | sel           | Diesel      |        | Diesel        |        |
|             | 1-4            | Operator type  |                   |      | Sea     | Seated                     |         | ted           | Sea         | ted    | Seated        |        |
|             | 1-5-1          | Load capacity at load centre distance c <sub>1</sub> without/with stabiliser | Q <sub>1</sub>    | kg   | 45,000  | n/a                        | 45,000  | n/a           | 46,000      | n/a    | 46,000        | n/a    |
| ¥           | 1-5-2          | Load capacity at load centre distance c <sub>2</sub> without/with stabiliser | Q <sub>2</sub>    | kg   | 24,000  | n/a                        | 28,000  | n/a           | 33,000      | n/a    | 38,000        | n/a    |
| GENERAL     | 1-5-3          | Load capacity at load centre distance c <sub>3</sub> without/with stabiliser | <b>Q</b> 3        | kg   | 11,000  | n/a                        | 13,000  | n/a           | 17,000      | n/a    | 20,000        | n/a    |
| ت ا         | 1-6-1          | Load centre distance c <sub>1</sub> (1)                                      | C <sub>1</sub>    | mm   | 1,8     | 65                         | 1,8     | 65            | 1,8         | 65     | 1,8           | 65     |
|             | 1-6-2          | Load centre distance c <sub>2</sub> (1)                                      | C <sub>2</sub>    | mm   | 3,8     | 15                         | 3,8     | 15            | 3,8         | 15     | 3,8           | 15     |
|             | 1-6-3          | Load centre distance c <sub>3</sub> (1)                                      | C <sub>3</sub>    | mm   | 6,3     | 15                         | 6,3     | 15            | 6,3         | 15     | 6,3           | 15     |
|             | 1-8            | Load distance, ctr of drive axle to face of front Tyres/front of stabiliser  | х                 | mm   | 835     | n/a                        | 835     | n/a           | 930         | n/a    | 930           | n/a    |
|             | 1-9            | Wheelbase  | У                 | mm   | 6,2     | 00                         | 6,2     | 200           | 6,2         | 00     | 6,7           | 00     |
|             | 1-10           | Stacking height at first row (number x container height)                     |                   | #    | 5 x 9   | 0′ 6″                      | 5 x 9   | 9′ 6″         | 5 x 9       | 9′ 6″  | 5 x 9         | 9′ 6″  |
| Ē           | 2-1            | Service weight   |                   | kg   | 72,4    | 100                        | 76,     | 100           | 83,         | 200    | 86,           | 500    |
| WEIGHT      | 2-2-1          | Axle loading with load, front / rear at c <sub>1</sub>                       |                   | kg   | 105,400 | 12,000                     | 105,200 | 15,900        | 108,800     | 20,400 | 108,800       | 23,700 |
|             | 2-3-1          | Axle loading without load, front / rear at c <sub>1</sub>                    |                   | kg   | 40,800  | 31,600                     | 40,500  | 35,600        | 42,100      | 41,100 | 43,600        | 42,900 |
|             | 3-1            | Tyre type  |                   |      | Pneur   | matic                      | Pneu    | matic         | Pneu        | matic  | Pneu          | matic  |
|             | 3-2            | Tyre size, front   |                   |      | 18.00-2 | 3.00-25 40PR 18.00-25 40PR |         | 5 40PR        | 18.00-3     |        | 18.00-3       | 3 36PR |
| WHEELS      | 3-3            | Tyre size, rear  |                   |      | 18.00-2 | 18.00-25 40PR              |         | 18.00-25 40PR |             | 3 36PR | 18.00-33 36PR |        |
| Š           |                | Wheels, number front / rear (X = driven wheels)                              |                   |      | x4/2    |                            | x4/2    |               | x4/2        |        | x4/2          |        |
|             | 3-6            | Tread, front   | b <sub>10</sub>   | mm   | 3,703   |                            | 3,703   |               | 3,703       |        | 3,703         |        |
|             | 3-7            | Tread, rear  | b <sub>11</sub>   | mm   | 3,0     |                            | 3,0     |               | 3,0         |        | 3,0           |        |
|             | 4-1            | Boom angle minimum / maximum   |                   | (°)  | 0/      |                            | 0 / 59  |               | 0 / 59      |        | 0 / 59        |        |
|             | 4-2            | Height of boom lowered   | h <sub>1</sub>    | mm   |         | 4,700                      |         | 00            | 4,795       |        | 4,795         |        |
|             | 4-4-1          | Lift height at load centre c <sub>1</sub> (2)                                | h <sub>3.1</sub>  | mm   | 14,780  |                            | 14,780  |               | 14,         |        | -             | 875    |
|             | 4-4-2          | Lift height at load centre c <sub>2</sub> (2)                                | h <sub>3.2</sub>  | mm   | 13,3    |                            | 13,375  |               | -           |        |               | 470    |
|             | 4-5            | Height, boom extended  | h <sub>4</sub>    | mm   | 18,1    |                            | 18,110  |               | 18,205      |        | -             | 205    |
|             | 4-7            | Height of overhead guard (cabin)   | h <sub>6</sub>    | mm   | 3,7     |                            | 3,720   |               |             | 15     | 3,8           |        |
|             | 4-8            | Seat height to SIP (3)   | h <sub>7</sub>    | mm   | 2,5     |                            | 2,555   |               | 2,650       |        | 2,650         |        |
| S           | 4-15           | Height under Twistlock - lowered (2)   | h <sub>13</sub>   | mm   | 88      |                            | 885     |               | 980         |        | 98            |        |
| Sion        | 4-19           | Overall length   | l <sub>1</sub>    | mm   | 8,3     |                            | -       | 8,360 8,650   |             |        | 9,1           |        |
| MENSIONS    | 4-20           | Overall length including boom retracted                                      | l <sub>2</sub>    | mm   | 11,8    |                            |         | 11,873 12,073 |             |        | 12,           |        |
| ▋ੂੂ         |                | Overall width across all of truck  | b <sub>2</sub>    | mm   | 4,2     |                            | 4,200   |               | 4,2         |        | 4,2           |        |
|             | 4-21-3         | Overall width across spreader 20'  | b <sub>1.20</sub> | mm   | 6,1     |                            | 6,1     |               | 6,1         |        | 6,1           |        |
|             | 4-21-4<br>4-31 | Overall width across spreader 40'  Ground clearance, lowest point            | b <sub>1.40</sub> | mm   | 12,2    |                            | 28      | 200           | 12,3        |        | 12,2          |        |
|             | 4-31           | Ground clearance, centre or wheelbase  | m <sub>1</sub>    | mm   | 43      |                            |         | 37            | 53          |        |               | 32     |
|             | 4-32           | Aisle width: 20' container (5) (6)   | M <sub>2</sub>    | mm   | 12,6    |                            |         | 639           | 13,         |        |               | 430    |
|             | 4-34-4         | Aisle width: 40' container (5) (6)   | Ast <sub>20</sub> | mm   | 14,4    |                            |         | 403           |             |        |               | 620    |
| 1           | 4-35           | Outside turning radius   | W <sub>a</sub>    |      | 8,4     |                            | 8,4     |               | 14,620      |        | 9,3           |        |
|             | 4-35           | Internal turning radius  | b <sub>13</sub>   | mm   | 1,5     |                            | 1,5     |               | 9,200       |        | 2,4           |        |
| ш           |                | Travel speed with / without load   | n13               | km/h | 20      | 22                         | 20      | 22            | 2,000       |        | 21            | 23     |
| ANC         | 5-2            | Lifting speed with / without load  |                   | m/s  | 0.27    | 0.47                       | 0.27    | 0.47          | 0.27        | 0.47   | 0.27          | 0.47   |
| PERFORMANCE | 5-3            | Lowering speed with / without load   |                   | m/s  | 0.46    | 0.45                       | 0.46    | 0.45          | 0.46        | 0.45   | 0.46          | 0.45   |
| PER         | 5-7            | Gradeability - 1.6 km/h, with / without load (7)                             |                   | %    | 26      | 35                         | 25      | 35            | 23          | 33     | 21            | 32     |
|             |                |  |                   |      | 20      |                            | 20      | - 00          |             |        | - 1           | 02     |

<sup>(1)</sup> From face of front tyres. Deduct 100 mm for loadcentre from front side of Stabilizer when applicable

## RS 46-38S, RS 38LS, RS 46-41XLS INTERMODAL HANDLERS

| < |  |
|---|--|

|             | 11         | Manufactures   |                   |      | HYS              | TED              | LIVE                  | TED              | LIVE                  | TED              |  |
|-------------|------------|--|-------------------|------|------------------|------------------|-----------------------|------------------|-----------------------|------------------|--|
|             | 1-1        | Manufacturer   |                   |      |                  |                  |                       | TER              | HYS                   |                  |  |
|             | 1-2        | Model designation  |                   |      | RS 46-           |                  | RS 46-38LS IH  Diesel |                  | RS 46-41XLS IH Diesel |                  |  |
|             | 1-3<br>1-4 | Drive  |                   |      |                  | Diesel<br>Seated |                       | Seated           |                       |                  |  |
|             | 1-5-1      | Operator type  | 0                 | lea. |                  | 46,000 46,000    |                       | 46,000 46,000    |                       | 16 000           |  |
|             | 1-5-2      | Load capacity at load centre distance c <sub>1</sub> without/with stabiliser     | Q <sub>1</sub>    | kg   |                  | ,                | ,                     |                  | 46,000                | 46,000           |  |
| GENERAL     | 1-5-2      | Load capacity at load centre distance c <sub>2</sub> without/with stabiliser     | Q <sub>2</sub>    | kg   | 35,000<br>18,000 | 38,000           | 38,000<br>20,000      | 38,000<br>27,000 | 38,000<br>22,000      | 38,000<br>31,000 |  |
| GEN         | 1-6-1      | Load capacity at load centre distance c <sub>3</sub> without/with stabiliser     | Q <sub>3</sub>    | kg   | 1,8              | 25,000           | ·                     |                  |                       |                  |  |
|             | 1-6-2      | Load centre distance c <sub>1</sub> (1)  Load centre distance c <sub>2</sub> (1) | C1                | mm   |                  |                  |                       | 365              | 1,8                   |                  |  |
|             | 1-6-3      | Load centre distance c <sub>3</sub> (1)  | C <sub>2</sub>    | mm   | 3,8              |                  | 3,815<br>6,315        |                  | 3,815<br>6,315        |                  |  |
|             | 1-8        | Load distance, ctr of drive axle to face of front Tyres/front of stabiliser      | C <sub>3</sub>    | mm   |                  |                  | 1030                  | 930              | 1030                  |                  |  |
|             | 1-9        | Wheelbase  | у                 | mm   | 6,200            |                  | 6,700                 |                  |                       |                  |  |
|             | 1-10       | Stacking height at first row (number x container height)                         | У                 | #    | 5 x 9′ 6″        |                  | 5 x 9′ 6″             |                  | 7,500<br>5 x 9′ 6″    |                  |  |
|             | 2-1        | Service weight   |                   | kg   | 87,500           |                  |                       | 500              | 88,                   |                  |  |
| WEIGHT      | 2-2-1      | Axle loading with load, front / rear at c <sub>1</sub>                           |                   | kg   | 111,000          | 22,500           | 111,000               | 23,500           | 110,055               | 24,488           |  |
| ×           | 2-3-1      | Axle loading without load, front / rear at c1                                    |                   | kg   | 44,200           | 43,300           | 45,800                | 42,700           | 46,900                | 41,600           |  |
|             | 3-1        | Tyre type  |                   | Kg   | Pneumatic        |                  | Pneumatic             |                  | Pneumatic             |                  |  |
|             | 3-2        | Tyre size, front   |                   |      | 18.00-33 36PR    |                  | 18.00-33 36PR         |                  | 18.00-33 36PR         |                  |  |
| S           | 3-3        | Tyre size, rear  |                   |      | 18.00-33 36PR    |                  | 18.00-33 36PR         |                  | 18.00-33 36PR         |                  |  |
| WHEELS      | 3-5        | Wheels, number front / rear (X = driven wheels)                                  |                   |      | x4/2             |                  | x4/2                  |                  | x4 / 2                |                  |  |
| -           | 3-6        | Tread, front   | b <sub>10</sub>   | mm   | 3,703            |                  | 3,703                 |                  | 3,703                 |                  |  |
|             | 3-7        | Tread, rear  | b <sub>11</sub>   | mm   | 3,060            |                  | 3,060                 |                  | 3,060                 |                  |  |
|             | 4-1        | Boom angle minimum / maximum   |                   | (°)  | 0 / 59           |                  | 0 / 59                |                  | 3 / 58                |                  |  |
|             | 4-2        | Height of boom lowered   | h <sub>1</sub>    | mm   | 4,795            |                  | 4,795                 |                  | 5,4                   | .57              |  |
|             | 4-4-1      | Lift height at load centre c <sub>1</sub> ( <b>2</b> )                           | h <sub>3.1</sub>  | mm   | 14,875           |                  | 14,                   | 875              | 14,                   | 765              |  |
|             | 4-4-2      | Lift height at load centre c <sub>2</sub> ( <b>2</b> )                           | h <sub>3.2</sub>  | mm   | 13,470           |                  | 13,470                |                  | 13,0                  | 698              |  |
|             | 4-5        | Height, boom extended  | h <sub>4</sub>    | mm   | 18,205           |                  | 18,205                |                  | 18,                   | 420              |  |
|             | 4-7        | Height of overhead guard (cabin)   | h <sub>6</sub>    | mm   | 3,815            |                  | 3,815                 |                  | 3,8                   | 15               |  |
|             | 4-8        | Seat height to SIP (3)   | h <sub>7</sub>    | mm   | 2,650            |                  | 2,650                 |                  | 2,6                   | 50               |  |
|             | 4-15       | Height under Twistlock - lowered (2)   | h <sub>13</sub>   | mm   | 98               | 30               | 980                   |                  | 1,835                 |                  |  |
| ONS         | 4-19       | Overall length   | I <sub>1</sub>    | mm   | 8,7              | 8,750            |                       | 9,250            |                       | 10,050           |  |
| MENSIONS    | 4-20       | Overall length including boom retracted  | l <sub>2</sub>    | mm   | 12,0             | 12,073           |                       | 12,573           |                       | 13,613           |  |
| 冒           | 4-21-2     | Overall width across all of truck  | b <sub>2</sub>    | mm   | 4,2              | 00               | 4,200                 |                  | 4,200                 |                  |  |
|             | 4-21-3     | Overall width across spreader 20'  | b <sub>1.20</sub> | mm   | 6,1              | 00               | 6,1                   | 6,100            |                       | 6,100            |  |
|             | 4-21-4     | Overall width across spreader 40'  | b <sub>1.40</sub> | mm   | 12,              | 200              | 12,200                |                  | 12,200                |                  |  |
|             | 4-31       | Ground clearance, lowest point   | m <sub>1</sub>    | mm   | 25               | 50               | 250                   |                  | 250                   |                  |  |
|             | 4-32       | Ground clearance, centre or wheelbase  | m <sub>2</sub>    | mm   | 53               | 32               | 532                   |                  | 53                    | 32               |  |
|             | 4-34-3     | Aisle width: 20' container (5) (6)   | Ast <sub>20</sub> | mm   | 13,              | 330              | 13,430                |                  | 14,780                |                  |  |
|             | 4-34-4     | Aisle width: 40' container (5) (6)   | Ast <sub>40</sub> | mm   | 14,6             | 620              | 14,                   | 620              | 15,                   | 370              |  |
|             | 4-35       | Outside turning radius   | Wa                | mm   | 9,2              | 000              | 9,3                   | 800              | 10,0                  | 650              |  |
|             | 4-36       | Internal turning radius  | b <sub>13</sub>   | mm   | 2,0              | 00               | 2,4                   | 100              | 2,9                   | 75               |  |
| J<br>J      | 5-1        | Travel speed with / without load   |                   | km/h | 21               | 23               | 21                    | 23               | 21                    | 23               |  |
| PERFORMANCE | 5-2        | Lifting speed with / without load  |                   | m/s  | 0.27             | 0.47             | 0.27                  | 0.47             | 0.27                  | 0.47             |  |
| RFO         | 5-3        | Lowering speed with / without load   |                   | m/s  | 0.46             | 0.45             | 0.46                  | 0.45             | 0.46                  | 0.45             |  |
| Ľ           | 5-7        | Gradeability - 1.6 km/h, with / without load (7)                                 |                   | %    | 21               | 32               | 21                    | 32               | 21                    | 32               |  |

 $<sup>\</sup>textbf{(1)} \quad \text{From face of front tyres. Deduct 100 mm for loadcentre from front side of Stabilizer when applicable}$ 

<sup>(2)</sup> For CH models only: With optional P(owered) P(ile) S(lope) function: deduct 310 mm

<sup>(3)</sup> Full suspension seat in depressed position

<sup>(5)</sup> These data are with the container carried 500 mm in front of the wheels (loadcenter 1720 mm)

<sup>(6)</sup> Stacking aisle width is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.

<sup>(7)</sup> Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

<sup>(2)</sup> For CH models only: With optional P(owered) P(ile) S(lope) function: deduct 310 mm

<sup>(3)</sup> Full suspension seat in depressed position

<sup>(5)</sup> These data are with the container carried 500 mm in front of the wheels (loadcenter 1720 mm)

<sup>(6)</sup> Stacking aisle width is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.

<sup>(7)</sup> Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.

## **POWERTRAINS**

| 1-1   Manufacturer   HYSTER   HYSTER    -2   Model designation   RS46 CH   RS46 IH    -3   Powertrain / drivetrain   Diesel   Diesel | 뒺 1-1 | Manufacturer            | HYSTER  | HYSTER  |
|--|-------|-------------------------|---------|---------|
|  | 별 1-2 | Model designation       | RS46 CH | RS46 IH |
| Diesel Diesel  | 물 1-3 | Powertrain / drivetrain | Diesel  | Diesel  |

|        | 7-1   | Engine manufacturer / model               |                     | Cummins / QSL9                  | Cummins / QSL9                  |
|--------|-------|---|---------------------|---------------------------------|---------------------------------|
|        | 7-1a  | EPA / CE Tier compliance                  |                     | Tier 4 / Stage IV               | Tier 4 / Stage IV               |
|        | 7-2   | Engine power output according to ISO 1585 | kW                  | 261                             | 261                             |
| l      | 7-2-1 | Engine power output - peak                | kW                  | 283                             | 283                             |
| ENGINE | 7-3   | Rated speed                               | rpm                 | 2,100                           | 2,100                           |
| ä      | 7-3-1 | Engine torque @rpm (1/min)                | N-m                 | 1,627 @ 1500                    | 1,627 @ 1500                    |
|        | 7-4   | Number of cylinders / displacement        | # / cm <sup>3</sup> | 6 / 8900                        | 6 / 8900                        |
|        |       | Turbocharger                              | Туре                | Variable geometry, water cooled | Variable geometry, water cooled |
|        | 7-8   | Alternator output                         | Amps                | 120                             | 120                             |
|        | 7-10  | Battery voltage, rated capacity           | V / Ah              | 24 / 102                        | 24 / 102                        |

|    | 8-1               | Drive control / transmission                 | Type / # | Powershift Transmission                | Powershift Transmission                |
|----|-------------------|--|----------|--|--|
|    | 8-2               | Transmission manufacturer / type             | Type / # | Spicer Off-Highway / TE-32             | Spicer Off-Highway / TE-32             |
| ١, | 8-4               | Transmission speeds forward / backward       | #        | 4 / 4                                  | 4 / 4                                  |
|    | 8-4<br>8-5<br>8-6 | Coupling                                     | Туре     | Torque Converter                       | Torque Converter                       |
| ľ  | 8-6               | Wheel drive / drive axle manufacturer / type | Type / # | Kessler D102                           | Kessler D102                           |
|    | 8-11              | Service brake                                | Туре     | Oil immersed (wet) disc                | Oil immersed (wet) disc                |
|    | 8-12              | Parking brake                                | Туре     | Spring applied, dry disc on drive axle | Spring applied, dry disc on drive axle |

|     | 9-1                   | Spreader manufacturer / type       |                | Type / # | Elme / 817    | Elme / 857    |
|-----|-----------------------|------------------------------------|----------------|----------|---------------|---------------|
|     | 9-1-1                 | Pile slope, mechanical without PPS |                | 0        | 3             | 3             |
| e:  | 9-1-2                 | Pile slope, mechanical with PPS    |                | ۰        | 1,5           | 1,5           |
| ٤   | 9-1-2<br>9-1-3<br>9-3 | Pile slope, total with PPS         |                | 0        | 6             | 6             |
| # # | 9-3                   | Size of containers                 |                | feet (´) | ISO 20' - 40' | ISO 20' - 40' |
| ~   | 9-4                   | Side shift                         | b <sub>8</sub> | mm       | +800 / -800   | +800 / -800   |
|     | 9-6-1                 | Rotation angle, without override   |                | 0        | +12 / -12     | +12 / -12     |
|     | 9-6-2                 | Rotation angle, with override      |                | 0        | +185 / -95    | +185 / -95    |

|      | 10-1   | Operating pressure for attachments        |      | bar   | 140         | 140         |
|------|--------|---|------|-------|-------------|-------------|
|      | 10-2   | Oil volume for attachments                |      | l/min | 110         | 110         |
|      | 10-3   | Hydraulic oil tank, capacity              |      | I     | 625         | 625         |
| ۱.,  | 10-4   | Fuel tank capacity                        |      | 1     | 830         | 830         |
| MISC | 10-4-1 | DEF/AdBlue tank capacity                  |      | I     | 57          | 57          |
| -    | 10-5   | Steering design                           |      |       | Hydrostatic | Hydrostatic |
|      | 10-6   | Number of steering rotation               |      |       | 6           | 6           |
|      | 10-7   | Sound pressure level at driver's seat (7) | Lpaz | dB(A) | 75          | 75          |
|      | 10-7-1 | Sound power level during the workcycle    | Lwaz | dB    | 109         | 109         |

Specifications are affected by the condition of the vehicle and how it is equipped, as well as the nature and condition of the operating area. Inform your dealer of the nature and condition of the intended operating area when purchasing your  $\mathsf{Hyster}^{\texttt{®}}$  truck.

- (1) From face of front tyres. Deduct 100 mm for loadcentre from front side of Stabilizer
- when applicable.

  (2) For CH models only: With optional P(owered) P(ile) S(lope) function: deduct 310 mm
- (3) Full suspension seat in depressed position.
   (5) These data are with the container carried 500 mm in front of the wheels (loadcenter
- (6) Stacking aisle width is based on the V.D.I. standard calculation as shown on illustration. The British Industrial Truck Association recommends the addition of 100 mm to the total clearance (dimension a) for extra operating margin at the rear of truck.
- (7) Gradeability figures are provided for comparison of tractive performance, but are not intended to endorse the operation of vehicle on the stated inclines.
- (8) Add 2 dB(A) for option with additional cab fan.

All capacities are according to EN1459.

All specifications and capacities are valid for trucks equipped with a  $\mathsf{Hyster}^{\texttt{@}}$  container handling spreader for handling ISO container.

Care must be exercised when handling elevated loads. Operators must be trained and must read, understand and follow the instructions contained in

All values are nominal values and they are subject to tolerances. For further information, please contact the manufacturer.

Hyster products are subject to change without notice.

Lift trucks illustrated may feature optional equipment. Values may vary with alternative configurations.

CERTIFICATION: Hyster lift trucks meet the design and construction requirements of B56.1-1969, per OSHA Section 1910.178(a)(2), and also comply with the 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.

 ${\it NOTE: Specifications, unless otherwise \ listed, are for a standard \ truck \ without}$ optional equipment.

Specification data is based on VDI 2198.

#### STANDARD AND OPTIONAL EQUIPMENT <

| PERFORMANCE   | STD                                 | OPT        |
|---|-------------------------------------|------------|
| Cummins QSL 9 diesel engine delivering 261 kW (rated) / 283 kW (max),   | Х                                   |            |
| Stage IV variable geometry turbocharger, water cooled   |                                     |            |
| Hibernate idle Hydraulically driven on-demand cooling fan   | X                                   |            |
| Powertrain protection system  | X                                   |            |
| Heavy duty air intake   | Х                                   |            |
| High mount exhaust  | Х                                   |            |
| Spicer Off-Highway TE-32 4-speed auto-shifting transmission*  | Х                                   |            |
| Kessler D102 drive axle with wet disc brakes  | X                                   |            |
| DRIVE   | STD                                 | OPT        |
| Travel speed limiter - unconditional (adjustable)  Travel speed limiter - loaded (adjustable)   | X                                   | Х          |
| E4 Pneumatic Drive and Steer Tyres Continental Container  |                                     |            |
| Master 18.00-25 40PR  | Х                                   |            |
| E4 Pneumatic Drive and Steer Tyres Continental Container<br>Master 18.00-33 40PR  | Х                                   | Х          |
| 18.00-25 40PR Goodyear Pneumatic Bias Ply drive and steer tyres   |                                     | Х          |
| 18.00-R25 Goodyear Slick Radial drive and steer tyres   |                                     | X          |
| 18.00-25 40PR Bridgestone STMS Slick Bias Ply drive and steer tyres 18.00-R36 Michelin XZM Pneumatic Radial drive and steer tyres   |                                     | X          |
| 18.00-R36 Goodyear Pneumatic Slick Radial drive and steer tyres   |                                     | X          |
| 18.00-33 36PR Goodyear Pneumatic Bias Ply drive and steer tyres   |                                     | X          |
| LIFT  | STD                                 | OPT        |
| On-demand load sensing hydraulic system   | Х                                   |            |
| Automatic throttle-up when lifting (in neutral or inching)  | Х                                   |            |
| 2-stage boom for 5-high 1st row stacking  | Х                                   |            |
| 6-high 1st row stacking   | V                                   | Х          |
| Load Moment Indicator (integrated in digital operator display) High speed hoist system - below 10 tons  | X                                   |            |
| Hydraulic system temperature protection with performance de-rate  | _ ^                                 | Х          |
| Container weighing system SOLAS compliant   |                                     | Х          |
| HANDLING  | STD                                 | ОРТ        |
| CANBus Spreader, Hyster Model 817 with rotation (CH models)   | Х                                   |            |
| CANBus Spreader, Hyster Model 857 with rotation (IH models)   | Х                                   |            |
| Soft landing systerm for spreader   | ļ.,                                 | Х          |
| Mechanical Pile Slope   | X                                   | CII        |
| Powered Pile Slope Dampening cylinders  | IH<br>X                             | СН         |
| Powered dampening cylinders   | ^                                   | Х          |
| Wide Twistlock Position (WTP) container handling  |                                     | Х          |
| Intermodal handling - top / bottom pick   | СН                                  |            |
| Tool changer  | _                                   | X          |
| Attachments for steel load handling   |                                     | X          |
| Attachments for wind industry load handling  Barge container handling   |                                     | X          |
| 4 lifting eyes located on end beam corners  | X                                   |            |
| 4 lifting eyes located under centre beam of spreader  |                                     | Х          |
| Spreader guides located at end of spreader beams  |                                     | Χ          |
| Rotation stops with override  | Х                                   |            |
| Automatic one-touch extend/retract (20'/40') for spreader   |                                     | X          |
| Stops for 30' containers  Vertical lift   |                                     | X          |
| Stops for 20-40' containers   |                                     | X          |
| VISIBILITY  | STD                                 | OPT        |
| External wide angle mirrors mounted on rear of front fenders  | Х                                   |            |
| Futured uside and a mirrors mounted on ton of front founders  | IH                                  | СН         |
| External wide angle mirrors mounted on top of front fenders   | 1                                   | Х          |
| Rear view camera system   |                                     |            |
| Rear view camera system<br>Halogen work lights  | Х                                   | v          |
| Rear view camera system<br>Halogen work lights<br>High performance LED work lights  |                                     | Χ          |
| Rear view camera system<br>Halogen work lights  | X                                   | Х          |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights  | Х                                   | X          |
| Rear view camera system<br>Halogen work lights<br>High performance LED work lights<br>LED twistlock indicator lights  | X                                   |            |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)   | X<br>X<br>X                         |            |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader   | X<br>X<br>X<br>STD<br>X             | <b>OPT</b> |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader SUPPLEMENTAL  | X<br>X<br>X<br>STD<br>X             | <b>OPT</b> |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader  SUPPLEMENTAL Literature package  | X X X X STD X X                     | ОРТ        |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader SUPPLEMENTAL Literature package Operator's manual   | X<br>X<br>X<br>STD<br>X<br>STD<br>X | <b>OPT</b> |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader  SUPPLEMENTAL Literature package  | X X X X STD X X                     | <b>OPT</b> |
| Rear view camera system Halogen work lights High performance LED work lights LED twistlock indicator lights LED stop/tail/brake lights Turn signals, hazard & marker lights (LED)  APPEARANCE Hyster yellow paint base truck and spreader Special paint base truck and spreader SUPPLEMENTAL Literature package Operator's manual Warranty: 24 Months / 4,000 Hours Parts & Labor | X<br>X<br>X<br>STD<br>X<br>STD<br>X | <b>OPT</b> |

| ERGONOMICS  | STD | <b>OPT</b>                           |
|---|-----|--------------------------------------|
| Powered partial-sliding cabin, including additional mirrors on top of fenders  Powered full-sliding cabin, including rear view mirrors, front rail, right   | Х   |                                      |
| side stairway, and handrails  |     | Х                                    |
| ull steel cab operator compartment  | Х   |                                      |
| Elevating operator cabin  | V   | Х                                    |
| solated mounting for low noise and vibration  Operator presence system  | X   |                                      |
| Mechanical suspension seat  | X   |                                      |
| Deluxe air suspension seat  |     | Х                                    |
| Low backrest*   | Х   |                                      |
| High backrest*  |     | Χ                                    |
| Cloth seat cover  | Х   |                                      |
| Vinyl seat cover  |     | X                                    |
| Seat heating  | Х   | Х                                    |
| P-point red high visibility seatbelt -point red high visibility seatbelt  | ^   | Х                                    |
| Floor mat   | Х   |                                      |
| Coat hook   | Х   |                                      |
| Front, top and rear wipers  | Х   |                                      |
| H"-pattern front wiper  | Χ   |                                      |
| l"-pattern front wiper  |     | Χ                                    |
| ront and rear window defrosters   | Χ   |                                      |
| Left side handrails, stairway and cabin door  | X   |                                      |
| Right side door   | Х   | v                                    |
| Right side handrails and stairway Left side stair lights  |     | X                                    |
| 7" Color digital operator display   | Х   | ^                                    |
| Seat-side joystick hydraulic control  | X   |                                      |
| Steering wheel spinner knob   | Х   |                                      |
| Directional control lever   | Χ   |                                      |
| Manual park brake   | Х   |                                      |
| Automatic park brake  |     | Χ                                    |
| nterior wide angle mirrors  | X   |                                      |
| Heater with 3 speed fan   | X   |                                      |
| Felescoping & tilting steering column DC/DC converter 24 volt/12 volt with socket   | Х   | Х                                    |
| DC/DC converter 24 volt/12 volt 2nd 12 volt socket  |     | X                                    |
| Air conditioning  |     | X                                    |
| Reading light   |     | Χ                                    |
| Sun shades on top and rear  |     | Χ                                    |
| Trainer seat  |     | Χ                                    |
| Recirculation fan   |     | Χ                                    |
| Rear locking console  |     | X                                    |
| Accessory mounting post   |     | X                                    |
| Heated top window Radio preparation set-up (wiring, two speakers and antenna)   |     | X                                    |
| OPERATION   | STD | OPT                                  |
| Electric air horn 112 dB  | Х   | UFI                                  |
| /isible alarm – Amber strobe light  | X   |                                      |
| Audible alarm – reverse direction activated 82–102 dB(A), self-adjusting  | X   |                                      |
| Forward motion alarm  |     | Х                                    |
| Seatbelt interlock for engine start   |     | Χ                                    |
| Seatbelt indicator light on top of cab  |     | Χ                                    |
| Tyre pressure monitoring system   |     | Χ                                    |
|   |     | .,                                   |
| ·   | Х   |                                      |
| Battery jump start connection (NATO plug)   | X   | X                                    |
| Battery jump start connection (NATO plug)<br>Adjustable automatic "empty seat" engine shutdown  | X   | Χ                                    |
| Battery jump start connection (NATO plug)<br>Adjustable automatic "empty seat" engine shutdown<br>Key switch start  | X   | X                                    |
| Battery jump start connection (NATO plug)<br>Adjustable automatic "empty seat" engine shutdown<br>Key switch start<br>Key switch start with seat belt interlock for engine start and operation  |     | Χ                                    |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap  | X   | X                                    |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap  |     | X<br>X<br>X                          |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system  |     | X<br>X<br>X                          |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring  | X   | X<br>X<br>X<br>X                     |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification   | X   | X<br>X<br>X<br>X<br>X                |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification Auto greasing system for basic truck & outer boom   | X   | X<br>X<br>X<br>X<br>X                |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification Auto greasing system for basic truck & outer boom Auto greasing system for inner boom and spreader  | X   | X<br>X<br>X<br>X<br>X<br>X<br>X      |
| Lockable battery disconnect switch Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification Auto greasing system for basic truck & outer boom Auto greasing system for inner boom and spreader Fire suppression system | X   | X<br>X<br>X<br>X<br>X                |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification Auto greasing system for basic truck & outer boom Auto greasing system for inner boom and spreader Fire suppression system 24 volt electrical system          | X   | X<br>X<br>X<br>X<br>X<br>X<br>X<br>X |
| Battery jump start connection (NATO plug) Adjustable automatic "empty seat" engine shutdown Key switch start Key switch start with seat belt interlock for engine start and operation Non-locking fuel cap Lockable fuel cap Diesel fuel inlet strainer in filler neck Hyster Tracker wireless asset management system Hyster Tracker wireless asset management - monitoring Hyster Tracker wireless asset management - access / verification Auto greasing system for basic truck & outer boom Auto greasing system for inner boom and spreader Fire suppression system                                    | X   | X<br>X<br>X<br>X<br>X<br>X           |

<sup>\*</sup>Standard or Optional in select markets or on select models. Other options available through Special Products Engineering Department (SPED). Contact Hyster for details.

13 **12** 

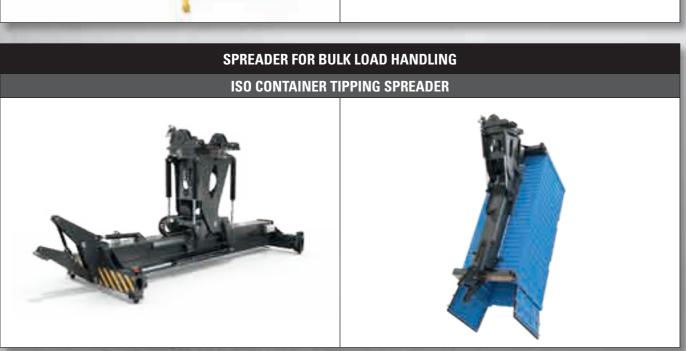
## > FRONT END EQUIPMENT

















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