

# STANDARD LOAD TABLE

Based on a Maximum Allowable Tensile Stress of 30,000 psi

## LONGSPAN STEEL JOISTS, LH- SERIES

Adopted by Steel Joist Institute and American Institute of Steel Construction, Inc., July 1, 1970

The black figures in the following table give the TOTAL safe uniformly-distributed load-carrying capacities, in pounds per linear foot, of LH-Series joists. The weight of DEAD loads, including the joists, must in all cases be deducted to determine the LIVE load-carrying capacities of the joists. The approximate DEAD load of the joists may be determined from the weights per linear foot shown in the tables.

The blue figures in this load table are the LIVE loads per linear foot of joist which will produce an approximate deflection of 1/360 of the span. LIVE loads which will produce a deflection of 1/240 of the span may be obtained by multiplying the blue figures by 1.5. (Note: The tabulated loads corresponding to these deflection limitations have been computed on the basis of 30,000 psi allowable stress provisions. For joists designed to a lower working stress these loads may be increased in the ratio of 30,000 psi to the design stress used, in order to meet the

same deflection limitations.) In no case shall the total load capacity of the joist be exceeded.\*

This load table applies to joists with either parallel chords or standard pitched top chords. When top chords are pitched, the carrying capacities are determined by the nominal depth of the joists at center of the span. Standard top chord pitch is 1/8 inch per foot. If pitch exceeds this standard, the load table does not apply. The load table may be used for parallel chord joists installed to a maximum slope of 1/2 inch per foot.

When holes are required in top or bottom chords, the carrying capacities must be reduced in proportion to reduction of chord areas.

The top chords are considered as being stayed laterally by floor slab or roof deck.

Loads to the right of the heavy vertical lines are to be used for roof construction only.

| Joist Designation | Approx. Wt. in Lbs. per Linear Ft. | Nominal Depth in Inches | SAFE LOAD** in Lbs. Between | CLEAR OPENING OR NET SPAN IN FEET |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-------------------|------------------------------------|-------------------------|-----------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                   |                                    |                         |                             | 21-24                             | 25        | 26        | 27        | 28        | 29        | 30        | 31        | 32        | 33        | 34        | 35        | 36        |           |           |           |
| 18LH02            | 13                                 | 18                      | 12000                       | 468                               | 442       | 418       | 391       | 367       | 345       | 324       | 306       | 289       | 273       | 259       | 245       |           |           |           |           |
|                   |                                    |                         |                             | 363                               | 323       | 289       | 260       | 235       | 212       | 193       | 176       | 160       | 147       | 135       | 124       |           |           |           |           |
| 18LH03            | 14                                 | 18                      | 13300                       | 521                               | 493       | 467       | 438       | 409       | 382       | 359       | 337       | 317       | 299       | 283       | 267       |           |           |           |           |
|                   |                                    |                         |                             | 388                               | 346       | 310       | 279       | 251       | 227       | 207       | 188       | 172       | 157       | 144       | 133       |           |           |           |           |
| 18LH04            | 16                                 | 18                      | 15500                       | 604                               | 571       | 535       | 500       | 469       | 440       | 413       | 388       | 365       | 344       | 325       | 308       |           |           |           |           |
|                   |                                    |                         |                             | 435                               | 388       | 347       | 312       | 281       | 255       | 231       | 211       | 192       | 176       | 162       | 149       |           |           |           |           |
| 18LH05            | 17                                 | 18                      | 17500                       | 684                               | 648       | 614       | 581       | 543       | 508       | 476       | 448       | 421       | 397       | 375       | 355       |           |           |           |           |
|                   |                                    |                         |                             | 509                               | 454       | 406       | 365       | 330       | 298       | 271       | 247       | 225       | 206       | 189       | 174       |           |           |           |           |
| 18LH06            | 19                                 | 18                      | 20700                       | 809                               | 749       | 696       | 648       | 605       | 566       | 531       | 499       | 470       | 443       | 418       | 396       |           |           |           |           |
|                   |                                    |                         |                             | 554                               | 494       | 442       | 397       | 358       | 324       | 295       | 268       | 245       | 224       | 206       | 190       |           |           |           |           |
| 18LH07            | 21                                 | 18                      | 21500                       | 840                               | 809       | 780       | 726       | 678       | 635       | 595       | 559       | 526       | 496       | 469       | 444       |           |           |           |           |
|                   |                                    |                         |                             | 628                               | 560       | 502       | 451       | 407       | 368       | 334       | 304       | 278       | 255       | 234       | 215       |           |           |           |           |
| 18LH08            | 22                                 | 18                      | 22400                       | 876                               | 843       | 812       | 784       | 758       | 717       | 680       | 641       | 604       | 571       | 540       | 512       |           |           |           |           |
|                   |                                    |                         |                             | 696                               | 620       | 555       | 499       | 450       | 408       | 370       | 337       | 308       | 282       | 259       | 238       |           |           |           |           |
| 18LH09            | 24                                 | 18                      | 24000                       | 936                               | 901       | 868       | 838       | 810       | 783       | 759       | 713       | 671       | 633       | 598       | 566       |           |           |           |           |
|                   |                                    |                         |                             | 753                               | 671       | 601       | 540       | 488       | 441       | 401       | 365       | 333       | 305       | 280       | 258       |           |           |           |           |
|                   |                                    |                         | <b>22-24</b>                | <b>25</b>                         | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> | <b>34</b> | <b>35</b> | <b>36</b> | <b>37</b> | <b>38</b> | <b>39</b> | <b>40</b> |
| 20LH02            | 13                                 | 20                      | 11300                       | 442                               | 437       | 431       | 410       | 388       | 365       | 344       | 325       | 307       | 291       | 275       | 262       | 249       | 237       | 225       | 215       |
|                   |                                    |                         |                             | 404                               | 362       | 325       | 293       | 265       | 241       | 220       | 200       | 184       | 169       | 155       | 143       | 132       | 122       | 114       |           |
| 20LH03            | 14                                 | 20                      | 12000                       | 469                               | 463       | 458       | 452       | 434       | 414       | 395       | 372       | 352       | 333       | 316       | 299       | 283       | 269       | 255       | 243       |
|                   |                                    |                         |                             | 432                               | 387       | 348       | 314       | 284       | 258       | 235       | 215       | 196       | 180       | 166       | 153       | 141       | 131       | 122       |           |
| 20LH04            | 16                                 | 20                      | 14700                       | 574                               | 566       | 558       | 528       | 496       | 467       | 440       | 416       | 393       | 372       | 353       | 335       | 318       | 303       | 289       | 275       |
|                   |                                    |                         |                             | 545                               | 486       | 435       | 391       | 353       | 319       | 290       | 264       | 241       | 221       | 203       | 187       | 172       | 159       | 147       | 137       |
| 20LH05            | 17                                 | 20                      | 15800                       | 616                               | 609       | 602       | 595       | 571       | 544       | 513       | 484       | 458       | 434       | 411       | 390       | 371       | 353       | 336       | 321       |
|                   |                                    |                         |                             | 568                               | 508       | 457       | 412       | 373       | 339       | 309       | 282       | 258       | 237       | 218       | 201       | 186       | 172       | 160       |           |
| 20LH06            | 19                                 | 20                      | 21100                       | 822                               | 791       | 763       | 723       | 679       | 635       | 596       | 560       | 527       | 497       | 469       | 444       | 421       | 399       | 379       | 361       |
|                   |                                    |                         |                             | 695                               | 620       | 555       | 499       | 450       | 407       | 370       | 337       | 308       | 282       | 259       | 238       | 220       | 203       | 188       | 174       |
| 20LH07            | 21                                 | 20                      | 22500                       | 878                               | 845       | 814       | 786       | 760       | 711       | 667       | 627       | 590       | 556       | 526       | 497       | 471       | 447       | 425       | 404       |
|                   |                                    |                         |                             | 788                               | 702       | 629       | 565       | 510       | 462       | 419       | 382       | 349       | 319       | 293       | 270       | 249       | 230       | 213       | 198       |
| 20LH08            | 22                                 | 20                      | 23200                       | 908                               | 873       | 842       | 813       | 785       | 760       | 722       | 687       | 654       | 621       | 588       | 558       | 530       | 503       | 479       | 457       |
|                   |                                    |                         |                             | 875                               | 780       | 698       | 628       | 566       | 513       | 466       | 424       | 387       | 355       | 326       | 300       | 276       | 255       | 237       | 220       |
| 20LH09            | 24                                 | 20                      | 25400                       | 990                               | 953       | 918       | 886       | 856       | 828       | 802       | 778       | 755       | 712       | 673       | 636       | 600       | 572       | 544       | 517       |
|                   |                                    |                         |                             | 951                               | 848       | 759       | 682       | 615       | 557       | 506       | 461       | 421       | 386       | 354       | 326       | 300       | 278       | 257       | 239       |
| 20LH10            | 27                                 | 20                      | 27400                       | 1068                              | 1028      | 991       | 956       | 924       | 894       | 865       | 839       | 814       | 791       | 748       | 707       | 670       | 636       | 604       | 575       |
|                   |                                    |                         |                             | 1067                              | 951       | 851       | 765       | 690       | 625       | 568       | 517       | 472       | 433       | 397       | 365       | 337       | 312       | 289       | 268       |

## STANDARD LOAD TABLE / LONGSPAN STEEL JOISTS, LH-SERIES

Based on Allowable Stress of 30,000 psi

| Joist Designation | Approx. Wt. in Lbs. per Linear Ft. | Depth in Inches | SAFE LOAD** in Lbs. Between | CLEAR OPENING OR NET SPAN IN FEET |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |
|-------------------|------------------------------------|-----------------|-----------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                   |                                    |                 |                             | 28-32                             | 33        | 34        | 35        | 36        | 37        | 38        | 39        | 40        | 41        | 42        | 43        | 44        | 45        | 46        | 47        | 48        |
| 24LH03            | 14                                 | 24              | 11500                       | 342                               | 339       | 336       | 323       | 307       | 293       | 279       | 267       | 255       | 244       | 234       | 224       | 215       | 207       | 199       | 191       |           |
|                   |                                    |                 |                             | 314                               | 288       | 264       | 243       | 224       | 207       | 192       | 178       | 166       | 154       | 144       | 134       | 126       | 118       | 110       | 104       | 214       |
| 24LH04            | 16                                 | 24              | 14100                       | 419                               | 398       | 379       | 360       | 343       | 327       | 312       | 298       | 285       | 273       | 262       | 251       | 241       | 231       | 222       | 214       |           |
|                   |                                    |                 |                             | 355                               | 325       | 298       | 275       | 253       | 234       | 217       | 201       | 187       | 174       | 162       | 152       | 142       | 133       | 125       | 117       | 214       |
| 24LH05            | 17                                 | 24              | 15100                       | 449                               | 446       | 440       | 419       | 399       | 380       | 363       | 347       | 331       | 317       | 304       | 291       | 280       | 269       | 258       | 248       |           |
|                   |                                    |                 |                             | 414                               | 379       | 348       | 320       | 295       | 273       | 253       | 235       | 218       | 203       | 189       | 177       | 166       | 155       | 145       | 137       | 248       |
| 24LH06            | 19                                 | 24              | 20300                       | 604                               | 579       | 555       | 530       | 504       | 480       | 457       | 437       | 417       | 399       | 381       | 364       | 348       | 334       | 320       | 307       |           |
|                   |                                    |                 |                             | 455                               | 417       | 382       | 352       | 325       | 300       | 278       | 258       | 240       | 223       | 208       | 194       | 182       | 170       | 160       | 150       | 307       |
| 24LH07            | 21                                 | 24              | 22300                       | 665                               | 638       | 613       | 588       | 565       | 541       | 516       | 491       | 468       | 446       | 426       | 407       | 389       | 373       | 357       | 343       |           |
|                   |                                    |                 |                             | 514                               | 471       | 432       | 398       | 367       | 339       | 314       | 291       | 271       | 252       | 235       | 220       | 206       | 193       | 181       | 170       | 343       |
| 24LH08            | 22                                 | 24              | 23800                       | 707                               | 677       | 649       | 622       | 597       | 572       | 545       | 520       | 497       | 475       | 455       | 435       | 417       | 400       | 384       | 369       |           |
|                   |                                    |                 |                             | 574                               | 525       | 482       | 444       | 409       | 378       | 351       | 325       | 302       | 282       | 263       | 245       | 230       | 215       | 202       | 190       | 369       |
| 24LH09            | 24                                 | 24              | 28000                       | 832                               | 808       | 785       | 764       | 731       | 696       | 663       | 632       | 602       | 574       | 548       | 524       | 501       | 480       | 460       | 441       |           |
|                   |                                    |                 |                             | 627                               | 574       | 527       | 485       | 447       | 414       | 383       | 355       | 330       | 308       | 287       | 268       | 251       | 235       | 221       | 207       | 441       |
| 24LH10            | 27                                 | 24              | 29600                       | 882                               | 856       | 832       | 809       | 788       | 768       | 737       | 702       | 668       | 637       | 608       | 582       | 556       | 533       | 511       | 490       |           |
|                   |                                    |                 |                             | 701                               | 642       | 590       | 543       | 500       | 463       | 428       | 398       | 370       | 344       | 321       | 300       | 281       | 263       | 247       | 232       | 490       |
| 24LH11            | 29                                 | 24              | 31200                       | 927                               | 900       | 875       | 851       | 829       | 807       | 787       | 768       | 734       | 701       | 671       | 642       | 616       | 590       | 567       | 544       |           |
|                   |                                    |                 |                             | 776                               | 710       | 652       | 600       | 554       | 512       | 474       | 440       | 409       | 381       | 355       | 332       | 310       | 291       | 273       | 256       | 544       |
|                   |                                    |                 |                             | <b>33-40</b>                      | <b>41</b> | <b>42</b> | <b>43</b> | <b>44</b> | <b>45</b> | <b>46</b> | <b>47</b> | <b>48</b> | <b>49</b> | <b>50</b> | <b>51</b> | <b>52</b> | <b>53</b> | <b>54</b> | <b>55</b> | <b>56</b> |
| 28LH05            | 16                                 | 28              | 14000                       | 337                               | 323       | 310       | 297       | 286       | 275       | 265       | 255       | 245       | 237       | 228       | 220       | 213       | 206       | 199       | 193       |           |
|                   |                                    |                 |                             | 277                               | 258       | 240       | 224       | 210       | 197       | 185       | 173       | 163       | 154       | 145       | 137       | 129       | 122       | 116       | 110       | 193       |
| 28LH06            | 19                                 | 28              | 18600                       | 448                               | 429       | 412       | 395       | 379       | 364       | 350       | 337       | 324       | 313       | 301       | 291       | 281       | 271       | 262       | 253       |           |
|                   |                                    |                 |                             | 332                               | 310       | 289       | 270       | 252       | 237       | 222       | 208       | 196       | 185       | 174       | 164       | 155       | 147       | 139       | 132       | 253       |
| 28LH07            | 21                                 | 28              | 21000                       | 505                               | 484       | 464       | 445       | 427       | 410       | 394       | 379       | 365       | 352       | 339       | 327       | 316       | 305       | 295       | 285       |           |
|                   |                                    |                 |                             | 375                               | 349       | 326       | 304       | 285       | 267       | 250       | 235       | 221       | 208       | 196       | 185       | 175       | 166       | 157       | 149       | 285       |
| 28LH08            | 21                                 | 28              | 22500                       | 540                               | 517       | 496       | 475       | 456       | 438       | 420       | 403       | 387       | 371       | 357       | 344       | 331       | 319       | 308       | 297       |           |
|                   |                                    |                 |                             | 385                               | 359       | 335       | 313       | 293       | 274       | 257       | 242       | 227       | 214       | 202       | 191       | 180       | 170       | 161       | 153       | 297       |
| 28LH09            | 24                                 | 28              | 27700                       | 667                               | 639       | 612       | 586       | 563       | 540       | 519       | 499       | 481       | 463       | 446       | 430       | 415       | 401       | 387       | 374       |           |
|                   |                                    |                 |                             | 461                               | 429       | 400       | 374       | 350       | 328       | 308       | 289       | 272       | 256       | 241       | 228       | 215       | 204       | 193       | 183       | 374       |
| 28LH10            | 27                                 | 28              | 30300                       | 729                               | 704       | 679       | 651       | 625       | 600       | 576       | 554       | 533       | 513       | 495       | 477       | 460       | 444       | 429       | 415       |           |
|                   |                                    |                 |                             | 514                               | 479       | 447       | 417       | 390       | 366       | 343       | 322       | 303       | 286       | 269       | 254       | 240       | 227       | 215       | 204       | 415       |
| 28LH11            | 29                                 | 28              | 32500                       | 780                               | 762       | 736       | 711       | 682       | 655       | 629       | 605       | 582       | 561       | 540       | 521       | 502       | 485       | 468       | 453       |           |
|                   |                                    |                 |                             | 569                               | 530       | 495       | 462       | 432       | 405       | 380       | 357       | 336       | 316       | 298       | 282       | 266       | 252       | 238       | 226       | 453       |
| 28LH12            | 33                                 | 28              | 35700                       | 857                               | 837       | 818       | 800       | 782       | 766       | 737       | 709       | 682       | 656       | 632       | 609       | 587       | 566       | 546       | 527       |           |
|                   |                                    |                 |                             | 645                               | 600       | 560       | 523       | 490       | 459       | 430       | 404       | 380       | 358       | 338       | 319       | 301       | 285       | 270       | 256       | 527       |
| 28LH13            | 36                                 | 28              | 37200                       | 895                               | 874       | 854       | 835       | 816       | 799       | 782       | 766       | 751       | 722       | 694       | 668       | 643       | 620       | 598       | 577       |           |
|                   |                                    |                 |                             | 707                               | 659       | 614       | 574       | 537       | 503       | 472       | 444       | 417       | 393       | 371       | 350       | 331       | 313       | 296       | 281       | 577       |
|                   |                                    |                 |                             | <b>38-48</b>                      | <b>49</b> | <b>50</b> | <b>51</b> | <b>52</b> | <b>53</b> | <b>54</b> | <b>55</b> | <b>56</b> | <b>57</b> | <b>58</b> | <b>59</b> | <b>60</b> | <b>61</b> | <b>62</b> | <b>63</b> | <b>64</b> |
| 32LH06            | 18                                 | 32              | 16700                       | 338                               | 326       | 315       | 304       | 294       | 284       | 275       | 266       | 257       | 249       | 242       | 234       | 227       | 220       | 214       | 208       |           |
|                   |                                    |                 |                             | 244                               | 229       | 216       | 204       | 193       | 182       | 173       | 164       | 155       | 148       | 140       | 133       | 127       | 121       | 115       | 110       | 208       |
| 32LH07            | 20                                 | 32              | 18800                       | 379                               | 366       | 353       | 341       | 329       | 318       | 308       | 298       | 288       | 279       | 271       | 262       | 254       | 247       | 240       | 233       |           |
|                   |                                    |                 |                             | 274                               | 258       | 243       | 230       | 217       | 205       | 194       | 184       | 175       | 166       | 158       | 150       | 143       | 136       | 130       | 124       | 233       |
| 32LH08            | 21                                 | 32              | 20400                       | 411                               | 397       | 383       | 369       | 357       | 345       | 333       | 322       | 312       | 302       | 293       | 284       | 275       | 267       | 259       | 252       |           |
|                   |                                    |                 |                             | 301                               | 284       | 268       | 253       | 239       | 226       | 214       | 203       | 192       | 183       | 174       | 165       | 157       | 150       | 143       | 136       | 252       |
| 32LH09            | 24                                 | 32              | 25600                       | 516                               | 498       | 480       | 463       | 447       | 432       | 418       | 404       | 391       | 379       | 367       | 356       | 345       | 335       | 325       | 315       |           |
|                   |                                    |                 |                             | 362                               | 341       | 321       | 303       | 287       | 271       | 257       | 243       | 231       | 219       | 208       | 198       | 189       | 180       | 171       | 164       | 315       |
| 32LH10            | 26                                 | 32              | 28300                       | 571                               | 550       | 531       | 512       | 495       | 478       | 462       | 445       | 430       | 416       | 402       | 389       | 376       | 364       | 353       | 342       |           |
|                   |                                    |                 |                             | 380                               | 358       | 337       | 318       | 301       | 285       | 269       | 255       | 242       | 230       | 219       | 208       | 198       | 189       | 180       | 172       | 342       |
| 32LH11            | 28                                 | 32              | 31000                       | 625                               | 602       | 580       | 560       | 541       | 522       | 505       | 488       | 473       | 458       | 443       | 429       | 416       | 403       | 390       | 378       |           |
|                   |                                    |                 |                             | 421                               | 397       | 374       | 353       | 334       | 316       | 299       | 284       | 269       | 256       | 243       | 231       | 220       | 210       | 200       | 191       | 378       |
| 32LH12            | 33                                 | 32              | 36400                       | 734                               | 712       | 688       | 664       | 641       | 619       | 598       | 578       | 559       | 541       | 524       | 508       | 492       | 477       | 463       | 449       |           |
|                   |                                    |                 |                             | 505                               | 476       | 449       | 424       | 401       | 379       | 359       | 340       | 323       | 307       | 291       | 277       | 264       | 251       | 240       | 229       | 449       |
| 32LH13            | 36                                 | 32              | 40600                       | 817                               | 801       | 785       | 771       | 742       | 715       | 690       | 666       | 643       | 621       | 600       | 581       | 562       | 544       | 527       | 511       |           |
|                   |                                    |                 |                             | 555                               | 522       | 493       | 465       | 440       | 416       | 394       | 373       | 354       | 336       | 320       | 304       | 290       | 276       | 263       | 251       | 511       |
| 32LH14            | 37                                 | 32              | 41800                       | 843                               | 826       | 810       | 795       | 780       | 766       | 738       | 713       | 688       | 665       | 643       | 622       | 602       | 583       | 564       | 547       |           |
|                   |                                    |                 |                             | 586                               | 552       | 520       | 491       | 464       | 439       | 416       | 394       | 374       | 355       | 338       | 321       | 306       | 291       | 278       | 265       | 547       |
| 32LH15            | 41                                 | 32              | 43200                       | 870                               | 853       | 837       | 821       | 805       | 791       | 776       | 763       | 750       | 725       | 701       | 678       | 656       | 635       | 616       | 599       |           |
|                   |                                    |                 |                             | 661                               | 622       | 587       | 554       | 524       | 495       | 469       | 445       | 422       | 401       | 381       | 362       | 345       | 329       | 313       | 297       | 599       |
|                   |                                    |                 |                             | <b>42-56</b>                      | <b>57</b> | <b>58</b> | <b>59</b> | <b>60</b> | <b>61</b> | <b>62</b> | <b>63</b> | <b>64</b> | <b>65</b> | <b>66</b> | <b>67</b> | <b>68</b> | <b>69</b> | <b>70</b> | <b>71</b> | <b>72</b> |
| 36LH07            | 20                                 | 36              | 16800                       | 292                               | 283       | 274       | 266       | 258       | 251       | 244       | 237       | 230       | 224       | 218       | 212       | 207       | 201       | 196       | 191       |           |
|                   |                                    |                 |                             | 224                               | 212       | 202       | 192       | 183       | 174       | 166       | 159       | 151       | 145       | 138       | 132       | 127       | 121       | 116       | 112       | 191       |
| 36LH08            | 20                                 | 36              | 18500                       | 321                               | 311       | 302       | 293       | 284       | 276       | 268       | 260       | 253       | 246       | 239       | 233       | 227       | 221       | 215       | 209       |           |
|                   |                                    |                 |                             | 230                               | 218       | 208       | 197       | 188       | 179       | 171       | 163       | 156       | 149       | 142       | 136       | 130       | 125       | 120       | 115       | 209       |
| 36LH09            | 23                                 | 36              | 23700                       | 411                               | 398       | 386       | 374       | 363       | 352       | 342       | 333       | 323       | 314       | 306       | 297       | 289       | 282       | 275       | 267       |           |
|                   |                                    |                 |                             | 281                               | 267       | 253       | 241       | 230       | 219       | 209       | 199       | 190       | 182       | 174       | 166       | 159       | 152       | 146       | 140       | 267       |
| 36LH10            | 26                                 | 36              | 26100                       | 454                               | 440       | 426       | 413       | 401       | 389       | 378       | 367       | 357       | 347       | 338       | 328       | 320       | 311       | 303       | 295       |           |
|                   |                                    |                 |                             | 311                               | 295       | 281       | 267       | 254       | 242       | 231       | 220       | 210       | 201       | 192       | 184       | 176       | 169       | 162       | 155       | 295       |
| 36LH11            | 28                                 | 36              | 28500                       | 495                               | 480       | 465       | 451       | 438       | 425       | 412       | 401       | 389       | 378       | 368       | 358       | 348       | 339       | 330       | 322       |           |
|                   |                                    |                 |                             | 345                               | 327       | 311       | 296       | 282       | 269       | 256       | 244       | 233       | 223       | 213       | 204       | 195       | 187       | 179       | 172       | 322       |
| 36LH12            | 32                                 | 36              | 34100                       | 593                               | 575       | 557       | 540       | 523       | 508       | 493       | 478       | 464       | 450       | 437       | 424       | 412       | 400       | 389       | 378       |           |
|                   |                                    |                 |                             | 389                               | 370       | 352       | 334       | 318       | 303       | 289       | 276       | 264       | 252       | 241       | 230       | 221       | 211       | 203       | 194       | 378       |
| 36LH13            | 36                                 | 36              | 40100                       | 697                               | 675       | 654       | 634       | 615       | 596       | 579       |           |           |           |           |           |           |           |           |           |           |

# STANDARD LOAD TABLE / LONGSPAN STEEL JOISTS, LH-SERIES

Based on Allowable Stress of 30,000 psi

| Joist Designation | Approx. Wt. in Lbs. per Linear Ft. | Depth in Inches | SAFE LOAD** in Lbs. Between | CLEAR OPENING OR NET SPAN IN FEET |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
|-------------------|------------------------------------|-----------------|-----------------------------|-----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
|                   |                                    |                 |                             | 47-64                             | 65         | 66         | 67         | 68         | 69         | 70         | 71         | 72         | 73         | 74         | 75         | 76         | 77         | 78         | 79         |
| <b>40LH08</b>     | 20                                 | 40              | 16600                       | 254<br>194                        | 247<br>185 | 241<br>177 | 234<br>170 | 228<br>162 | 222<br>156 | 217<br>149 | 211<br>143 | 206<br>137 | 201<br>132 | 196<br>127 | 192<br>122 | 187<br>117 | 183<br>113 | 178<br>108 | 174<br>104 |
| <b>40LH09</b>     | 23                                 | 40              | 21800                       | 332<br>237                        | 323<br>227 | 315<br>217 | 306<br>207 | 298<br>198 | 291<br>190 | 283<br>182 | 276<br>175 | 269<br>168 | 263<br>161 | 256<br>155 | 250<br>149 | 244<br>143 | 239<br>138 | 233<br>133 | 228<br>128 |
| <b>40LH10</b>     | 25                                 | 40              | 24000                       | 367<br>248                        | 357<br>237 | 347<br>226 | 338<br>217 | 329<br>207 | 321<br>199 | 313<br>191 | 305<br>183 | 297<br>175 | 290<br>168 | 283<br>162 | 276<br>156 | 269<br>150 | 262<br>144 | 255<br>139 | 249<br>133 |
| <b>40LH11</b>     | 27                                 | 40              | 26200                       | 399<br>274                        | 388<br>262 | 378<br>250 | 368<br>240 | 358<br>229 | 349<br>220 | 340<br>211 | 332<br>202 | 323<br>194 | 315<br>186 | 308<br>179 | 300<br>172 | 293<br>165 | 286<br>159 | 279<br>153 | 273<br>148 |
| <b>40LH12</b>     | 32                                 | 40              | 31900                       | 486<br>329                        | 472<br>315 | 459<br>301 | 447<br>288 | 435<br>276 | 424<br>264 | 413<br>253 | 402<br>243 | 392<br>233 | 382<br>224 | 373<br>215 | 364<br>207 | 355<br>199 | 346<br>191 | 338<br>184 | 330<br>177 |
| <b>40LH13</b>     | 36                                 | 40              | 37600                       | 573<br>384                        | 557<br>367 | 542<br>351 | 528<br>336 | 514<br>321 | 500<br>308 | 487<br>295 | 475<br>283 | 463<br>272 | 451<br>261 | 440<br>251 | 429<br>241 | 419<br>232 | 409<br>223 | 399<br>215 | 390<br>207 |
| <b>40LH14</b>     | 37                                 | 40              | 43000                       | 656<br>407                        | 638<br>389 | 620<br>372 | 603<br>356 | 587<br>341 | 571<br>327 | 556<br>313 | 542<br>300 | 528<br>288 | 515<br>277 | 502<br>266 | 490<br>256 | 478<br>246 | 466<br>237 | 455<br>228 | 444<br>220 |
| <b>40LH15</b>     | 41                                 | 40              | 48100                       | 734<br>458                        | 712<br>438 | 691<br>419 | 671<br>401 | 652<br>384 | 633<br>368 | 616<br>352 | 599<br>338 | 583<br>324 | 567<br>312 | 552<br>299 | 538<br>288 | 524<br>277 | 511<br>266 | 498<br>256 | 486<br>247 |
| <b>40LH16</b>     | 47                                 | 40              | 53000                       | 808<br>537                        | 796<br>513 | 784<br>491 | 772<br>470 | 761<br>450 | 751<br>431 | 730<br>413 | 710<br>396 | 691<br>380 | 673<br>365 | 655<br>351 | 638<br>337 | 622<br>324 | 606<br>312 | 591<br>300 | 576<br>289 |
|                   |                                    |                 | <b>52-72</b>                | <b>73</b>                         | <b>74</b>  | <b>75</b>  | <b>76</b>  | <b>77</b>  | <b>78</b>  | <b>79</b>  | <b>80</b>  | <b>81</b>  | <b>82</b>  | <b>83</b>  | <b>84</b>  | <b>85</b>  | <b>86</b>  | <b>87</b>  | <b>88</b>  |
| <b>44LH09</b>     | 22                                 | 44              | 20000                       | 272<br>186                        | 265<br>179 | 259<br>172 | 253<br>165 | 247<br>159 | 242<br>153 | 236<br>147 | 231<br>142 | 226<br>137 | 221<br>132 | 216<br>127 | 211<br>123 | 207<br>118 | 202<br>114 | 198<br>110 | 194<br>107 |
| <b>44LH10</b>     | 25                                 | 44              | 22100                       | 300<br>214                        | 293<br>205 | 286<br>197 | 279<br>190 | 272<br>183 | 266<br>176 | 260<br>169 | 254<br>163 | 249<br>157 | 243<br>151 | 238<br>146 | 233<br>141 | 228<br>136 | 223<br>131 | 218<br>127 | 214<br>122 |
| <b>44LH11</b>     | 27                                 | 44              | 23900                       | 325<br>237                        | 317<br>227 | 310<br>218 | 302<br>210 | 295<br>202 | 289<br>194 | 282<br>187 | 276<br>180 | 269<br>174 | 264<br>167 | 258<br>161 | 252<br>156 | 247<br>150 | 242<br>145 | 236<br>140 | 232<br>136 |
| <b>44LH12</b>     | 31                                 | 44              | 29600                       | 402<br>267                        | 393<br>256 | 383<br>246 | 374<br>237 | 365<br>228 | 356<br>219 | 347<br>211 | 339<br>203 | 331<br>196 | 323<br>189 | 315<br>182 | 308<br>176 | 300<br>170 | 293<br>164 | 287<br>158 | 280<br>153 |
| <b>44LH13</b>     | 35                                 | 44              | 35100                       | 477<br>313                        | 466<br>301 | 454<br>289 | 444<br>278 | 433<br>267 | 423<br>257 | 413<br>248 | 404<br>239 | 395<br>230 | 386<br>222 | 377<br>214 | 369<br>206 | 361<br>199 | 353<br>192 | 346<br>186 | 338<br>180 |
| <b>44LH14</b>     | 36                                 | 44              | 40400                       | 549<br>340                        | 534<br>326 | 520<br>313 | 506<br>301 | 493<br>290 | 481<br>279 | 469<br>269 | 457<br>259 | 446<br>249 | 436<br>240 | 425<br>232 | 415<br>224 | 406<br>216 | 396<br>208 | 387<br>201 | 379<br>195 |
| <b>44LH15</b>     | 41                                 | 44              | 47000                       | 639<br>396                        | 623<br>381 | 608<br>366 | 593<br>352 | 579<br>338 | 565<br>325 | 551<br>313 | 537<br>302 | 524<br>291 | 512<br>280 | 500<br>270 | 488<br>261 | 476<br>252 | 466<br>243 | 455<br>235 | 445<br>227 |
| <b>44LH16</b>     | 47                                 | 44              | 54200                       | 737<br>465                        | 719<br>446 | 701<br>429 | 684<br>412 | 668<br>396 | 652<br>381 | 637<br>367 | 622<br>354 | 608<br>341 | 594<br>329 | 580<br>317 | 568<br>306 | 555<br>295 | 543<br>285 | 531<br>275 | 520<br>266 |
| <b>44LH17</b>     | 54                                 | 44              | 58200                       | 790<br>528                        | 780<br>507 | 769<br>487 | 759<br>469 | 750<br>451 | 732<br>434 | 715<br>417 | 699<br>402 | 683<br>388 | 667<br>374 | 652<br>360 | 638<br>348 | 624<br>336 | 610<br>324 | 597<br>313 | 584<br>303 |
|                   |                                    |                 | <b>56-80</b>                | <b>81</b>                         | <b>82</b>  | <b>83</b>  | <b>84</b>  | <b>85</b>  | <b>86</b>  | <b>87</b>  | <b>88</b>  | <b>89</b>  | <b>90</b>  | <b>91</b>  | <b>92</b>  | <b>93</b>  | <b>94</b>  | <b>95</b>  | <b>96</b>  |
| <b>48LH10</b>     | 25                                 | 48              | 20000                       | 246<br>188                        | 241<br>181 | 236<br>175 | 231<br>169 | 226<br>163 | 221<br>157 | 217<br>152 | 212<br>147 | 208<br>142 | 204<br>137 | 200<br>133 | 196<br>129 | 192<br>124 | 188<br>121 | 185<br>117 | 181<br>113 |
| <b>48LH11</b>     | 27                                 | 48              | 21700                       | 266<br>208                        | 260<br>201 | 255<br>194 | 249<br>187 | 244<br>180 | 239<br>174 | 234<br>168 | 229<br>163 | 225<br>157 | 220<br>152 | 216<br>147 | 212<br>142 | 208<br>138 | 204<br>133 | 200<br>129 | 196<br>125 |
| <b>48LH12</b>     | 31                                 | 48              | 27400                       | 336<br>235                        | 329<br>226 | 322<br>218 | 315<br>211 | 308<br>203 | 301<br>196 | 295<br>190 | 289<br>183 | 283<br>177 | 277<br>171 | 272<br>166 | 266<br>161 | 261<br>155 | 256<br>151 | 251<br>146 | 246<br>141 |
| <b>48LH13</b>     | 35                                 | 48              | 32800                       | 402<br>276                        | 393<br>266 | 384<br>257 | 376<br>248 | 368<br>239 | 360<br>231 | 353<br>223 | 345<br>215 | 338<br>208 | 332<br>201 | 325<br>195 | 318<br>189 | 312<br>183 | 306<br>177 | 300<br>171 | 294<br>166 |
| <b>48LH14</b>     | 36                                 | 48              | 38700                       | 475<br>299                        | 464<br>288 | 454<br>278 | 444<br>268 | 434<br>259 | 425<br>250 | 416<br>242 | 407<br>234 | 399<br>226 | 390<br>218 | 383<br>211 | 375<br>205 | 367<br>198 | 360<br>192 | 353<br>186 | 346<br>180 |
| <b>48LH15</b>     | 41                                 | 48              | 44500                       | 545<br>349                        | 533<br>336 | 521<br>325 | 510<br>313 | 499<br>302 | 488<br>292 | 478<br>282 | 468<br>273 | 458<br>264 | 448<br>255 | 439<br>247 | 430<br>239 | 422<br>231 | 413<br>224 | 405<br>217 | 397<br>210 |
| <b>48LH16</b>     | 47                                 | 48              | 51300                       | 629<br>409                        | 615<br>394 | 601<br>380 | 588<br>367 | 576<br>354 | 563<br>342 | 551<br>331 | 540<br>320 | 528<br>309 | 518<br>299 | 507<br>289 | 497<br>280 | 487<br>271 | 477<br>262 | 468<br>254 | 459<br>246 |
| <b>48LH17</b>     | 54                                 | 48              | 57600                       | 706<br>465                        | 690<br>449 | 675<br>433 | 660<br>418 | 646<br>403 | 632<br>389 | 619<br>376 | 606<br>363 | 593<br>351 | 581<br>340 | 569<br>329 | 558<br>318 | 547<br>308 | 536<br>299 | 525<br>289 | 515<br>280 |

\*Section 104.10 of the "Standard Specifications for Longspan Steel Joists, LJ- and LH-Series" limits the design LIVE load deflection as follows: Floors, 1/360 of span. Roofs, 1/360 of span where a plaster ceiling is attached or suspended; 1/240 of span for all other cases.

\*\*To extrapolate for safe uniform load between spans shown, divide the Safe Load in pounds by net span in feet plus .67 feet. (The added .67 feet, eight inches, is necessary to obtain the proper span for which the load tables were developed.)

